

EDUCATION FOR BEING

A Report on Experiences in an Active School

By Rebeca Wild

The new kind of school described in this book lays the emphasis on two little understood yet highly significant facts: on the one hand the individual nature of the child with its as yet undeveloped abilities, and on the other hand the crass reality of the future society into which the child will go a reality about which no teacher or learning can possibly impart a fair picture. This book underlines the relationship between these two elements in a practical way, showing how we prepare our children for the future, not by giving them more and more contemporary knowledge, but by a strengthening of all their natural inborn powers. We then see how these powers lead the child naturally from within, into its own process of development.

Rebeca Wild's beautifully observed account of a successful experimental school, allows us to recognize the almost unforeseeable consequences that a teaching method such as this has, which allows the children to develop in a living way. This method creates a completely different spirit, an atmosphere of care and concern in which the children unfold their own activities from a wide range of possible choices out of their own being. In this way they learn to appreciate real life situations, develop initiative, learn to make decisions, to face problems and to accept responsibility for their own actions; thereby they learn trust in themselves and are able to develop close relationships with others. Many burning current issues which are faced in schools and in society, are met with and resolved in this school as daily experiences.

This book shows a heartening example of what individuals can achieve as a result of their own striving. without support from institutions, governments or other powerful groups.

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she founded and currently directs a unique kindergarten, school and learning centre.

1: Prologue

It is 1982; in the Ecuadorian Andes the summer holidays began a fortnight ago and, shortly before, the dry season came in with a bang. Strong winds: chase white clouds over it dark blue sky and the slim eucalyptus trees bend ceaselessly from side to side. If you shut your eyes, you would think you were by the sea, the wind roars so powerfully in the long rows of trees around the Pestalozzi school.

Five hard working years lie behind us. Our strength has been taxed as never before by building up an alternative school, finding new ways of working, and simply keeping on day after day. The active system calls for a tremendous amount of preparation, a ceaseless readiness to change, endless inventing, constructing, bringing together, ordering and maintaining materials. The days seem too short and there are not enough hands to carry out all the ideas which hobble up when we are working with the children. During these years I have often wished to write something from the rich storehouse of our observations of Children in Freedom'. But until now then has always been something more urgent - consultations with parents, teachers' meetings, play therapy, the daily record of our observations, courses for teachers, parents, students from various faculties, discussions with Indian groups from faraway parts of the country, interviews with the Ministry of Culture - a long list of activities directly or indirectly involved with the school, filling my afternoons, evenings, and weekends.

However, during the last few months I have really wanted to share our Ecuadorian experiences with our friends in Europe. More and more young people from various countries have been here to visit. They have asked very many questions, and it has become clear that the developed world; also feels uncertainty and confusion about the: aims and sense of the present educational methods, and this impression has been strengthened by reading various publications from Europe.

This wish of mine, to share our experiences with our friends in Europe, coincides with my growing personal need to recall, reflect, write down, and

thus come to some sort of balance between our very active life and a more contemplative way, to bring my thoughts and feelings into order, and perhaps, in passing to glean some new insights.

Recently, we had a young visitor from Hamburg. He was about to choose a course of study and had been hoping that a journey through South America might give him some fresh perspectives. What he saw here convinced him that none of this could have come about through the efforts of individuals. He came to realize that this is not an 'institution' but an on-going work which has grown organically according to the inner and outer needs and is still developing. It is a very personal kind of work, a maturing process that will be familiar to everyone who has been led, by working with children, their own or others, to wonder about the whole point of education. To sketch in some of the background to our experiences, and to show how the coming together of outer and inner pointed us on our way, I will turn back to 1959.

It was a sunny September morning in South Germany, and I was working as a holiday tour guide to help finance my studies. On this particular day I had been assigned to a coach to Neuschwanstein, and while forty tourists from all over the world were enjoying the beauties of the rococo church, the guides went off for a sandwich. One of the guides started to pester me, and as I tried to avoid him I suddenly found myself next to a young foreign-looking man whom I had never seen before. I do not remember what he said, but his quiet voice, and something authoritative about him, sent the over-excited guide away. I looked up thankfully, and suddenly found myself in the presence of a man who was, in a quite unusual way, just simply himself; his expression, his voice, his clothing and posture all spoke of harmony and lack of tension.

We met again by the lake, and while the tourists admired the castle we spent a happy hour rowing, chatting and laughing, and before we parted, he had introduced himself with a foreign-sounding first name and German surname, invited me to the cinema, and obtained my telephone number. The visit to the cinema turned into a three-hour walk through the streets of Munich, during which I learnt that Mauricio had been born of Swiss parents in Ecuador, had been sent to Switzerland at the age of twelve to acquire an education, but had never been able to settle down there and at eighteen had taken to the road. He worked when he needed money, learnt various languages, but above all travelled in search of his identity, which with the

contrasts of his childhood in Ecuador, his youth in Switzerland and his years under way, did not come to him easily but had to be sought.

Even on this first walk we were talking about 'learning to be one's self' or 'looking for one's true self', 'being honest with one's self' - locutions which perhaps sound overly philosophical for twenty-years-olds, but which exactly expressed our state of mind. My own war-time childhood had taught me to put aside fear and insecurity and live each day to the full; then school-days had overshadowed the need for a genuine feeling for life, and hindered rather than encouraged true understanding and clarity of thought and feeling. During my studies, Romano Guardini's lectures on Plato had meant more to me than my philological courses.

In those few days of sunny early autumn, I was often struck by Mauricio's clarity and purpose of thought and feeling, contrasting so strongly with the uncertainty of his outer life. My own conviction that I 'knew exactly what I wanted out of life' was very much shaken by our time together: suddenly the idea of a journey into the unknown, both outwardly and inwardly, seemed more pressing than any of my previous intentions.

Three weeks later, when the vacation ended, we parted, Mauricio to hike through Italy to Africa and I to my studying of German language and literature, which soon required my full attention - apart from some unexpected interruptions caused by the regular arrival of letters from Italy, letters full of impressions and personal reactions, impossible to answer as the writer had no fixed address and could not be reached by post. However, shortly before Christmas, Mauricio broke off his travels and returned to Switzerland to take over the care of a crippled friend whose father's back had given out from too much lifting. Thus, unexpectedly there was an address for me to write to, and during that winter we were able to visit each other several times.

Our plan gradually took shape, to embark on a new life together in Ecuador. We imagined that there would be more freedom of movement and more opportunities for our own decisions than in Europe, and that this could help us in our search for a more genuine way of life.

In 1960 Mauricio left for Ecuador, and in July 1961. I followed him, beginning a journey into the unknown which has never ended. Any European visiting South America knows the feeling of being in a country

where everything is different, from the air, the sounds, the smells. the language, the food, the sense of time, to what is important or not. while evokes laughter or tears, how people walk or dance. It is so totally different that many tourists, having seen the sights and taken enough photographs. retire exhausted to the neutral atmosphere of their hotels.

As I steamed into the Rio Guayas on a banana boat, waiting on deck in the sunny tropical afternoon to see whether Mauricio, whom I had not seen for eighteen months, would appear on one of the many little boats, I was still in the balance between two worlds - here a scrubbed white German steamer, with everything familiar and comfortable, and not far away this unknown land that was to be: my home. Now and again an officer or steward came by, and gestured towards the brown river, and nearby Guayaquil, which then had hardly any modern buildings. 'Better come back with us, it's a filthy country and the people are not up to much. You'll never settle.

To cap it all, no Mauricio - and I had no idea of how he lived, or what possibly might have kept him. His letters had only sketched in the outer side of his life in Ecuador, as: a background to what was really interesting him. In one he had written. 'If you art: expecting anything pleasant and familiar, better not come. Expect only my love, and the hope that we will find our way to a reality which wt: cannot yet imagine. Certainly, at twenty-two we had very little idea of this 'reality', but we guessed that a way lay before us that would lead ahead both outwardly and inwardly. Our ideas had been coloured by Christian tradition and mysticism, also by Eastern wisdom and Jung's: psychology. and even if we were only gradually getting our bearings wt: felt a great trust that unexpected pathways would open up for us.

Our first meeting after the long time of letter-writing was quite unceremonious and in keeping with our turbulent life. Mauricio had found out in advance when the 'Perikles' was due to dock, and had even come a day early to Guayaquil from Quevedo, one hundred and twenty five miles away, to have his old VW overhauled. However, there was to be a party aboard the ship and she had come in a day early. Mauricio had just left the car at the garage and was wandering along the quay, when he saw the ship in the distance. There were the right number of letters in the name. He ran on, finally deciphered the name and set out in a boat immediately. At the gangway he met the officer on watch and was finally allowed on. I had given up waiting and had invited an acquaintance to join me for a drink. Suddenly I heard my name. I ran to the gangway, asking that each of the

many doors (locked for security reasons) be opened for me and locked after me. Mauricio, below, was doing the same. Finally, miraculously, we were in each other's arms.

Hastily we left the ship, and a flood of new sensations stormed in on me. We spent a few days in Guayaquil buying essentials for our new household, loaded up the VW bus and set off for Quevedo, which was then a little town, a centre of banana-growing for export, surrounded on all sides by jungle.

For the first time, I drove by wide rice-fields, and meadows which were flooded all the year round, where cows and horses stood ankle-deep in water and their food was kept on tiny green islands. In every village we were over-run with peddlers trying to sell us food for the Journey the only items I could recognize were the hard-boiled eggs. The journey continued through various plantations and for the first time I saw mangos growing, coffee, cocoa, tapioca and, finally, bananas. After four hours we reached our destination, Quevedo, which then had barely seven thousand inhabitants. From the top of the street one could see the whole township. First came the little water-tower, which theoretically served all the population but in practice worked only occasionally. It looked like an old picture of the Wild West, except that the houses were made of bamboo, with the odd wooden or concrete building among them. The streets were not paved, and in this dry season every vehicle raised enormous clouds of dust, against which the pedestrians tried to protect their faces with handkerchiefs. In the rainy season, as I was to discover, this dust turned into a sticky morass, requiring enormous leaps and jumps. Amongst all this, the children, pigs, dogs and chickens, played happily, scattering only when a jeep or banana lorry rushed through.

Our first home was on the first floor of one of Quevedo's 'better' houses, over a little shop, where the shopkeeper lived, it friendly old grandfather, with his children and numerous grandchildren. They seemed a happy family, although their entire worldly wealth consisted of a few beds, a wobbly table and two hammocks. Over the shop they had built a simple flat, which we now rented. Mauricio had paid quite a sum to have running water installed, which worked sporadically.

Our first supper, in the town's single Chinese restaurant, and a little walk through the town as it awoke to noisy life in the evening, were soon over. It was simple enough to set up our new home, our table and four chairs and

comfortable hammock, a wooden cupboard chained to the wall, which held our books and gramophone; on the walls a couple of pictures painted with the mouth, a wedding gift from our crippled friend in Switzerland. In the bedroom, bed, cupboard and chair, and a white mosquito-net; in the kitchen, homemade cupboard, a kerosene stove and a wooden washing trough.

In these simple surroundings we and a few friends held our wedding party. We did not feel poor, but rich; and no-one objected, for in Ecuador everyone, save a few families, lives very simply.

When we think back to this first year of our marriage, it seems like a year's holiday. Our aim was to live with the bare minimum of worldly goods, and we covered our expenses with the profits from a 'timber business' - that is to say, now and again Mauricio and a group of young friends would go into the jungle to find the types of wood which a friendly timber merchant had promised to buy from him they then sallied forth daily, loaded up as much as their prehistoric lorry would early, and returned into Quevedo in a cloud of dust and noise and excitement during the afternoon. We then cycled down to the river, and measured, noted and paid the logs before they were bundled and scored, until there was a considerable amount which could then be transported down the river on a long adventurous journey Guayaquil when the rains came.

Twenty years ago. life in Ecuador was unimaginably cheap - food, rent, petrol and travel. We loved it, and the freedom it gave us to arrange each day as we chose. At sunrise we cycled down to the river and bathed in its clear deep waters, then came home and did our yoga exercises, followed by a simple breakfast of fruit and roasted barley.

Then I tried out my school Spanish in the market, and practised my cooking on the kerosene stove, and Mauricio pursued his self-directed studies in comparative religion and learnt to type and play the flute. In the afternoons we read and worked on our Spanish. After measuring our logs we had another swim in the river, and after our evening meal we would lie and chat in our hammock, visit or entertain friends, or occasionally visit the town's one cinema where the loudspeakers were so noisy that not one word was audible and the audience had to rely on the subtitles.

We had no care for the future, but lived from one day to the next in a way that seems possible only in the tropics, and enjoyed a life free of

responsibilities and devoted entirely to our own interests. This idyll was interrupted only by the occasional exploration into the jungle or journey into Guayaquil on business. However, slowly we began to feel slightly ill at ease. It seemed that all our avoidance of the world's hustle and bustle, all our yoga exercises, all our reading of spiritual literature was not bringing us any nearer to the 'inner way' for which we longed. No baby put in an appearance to stir us to greater responsibilities, and gradually we became bored with our morning muesli, and slack and tired from doing almost nothing. Or was it only the hot rainy season which was draining our energies? In which direction were we to seek for purpose and wider horizons? We took on a little more work - private lessons in English and Music for the local people - but basically we were waiting for something, without knowing what.

During this time we came to know a Dutch family who lived on a big farm not far from Quevedo - just like the Dutch in Indonesia in a beautiful house set amongst tropical gardens. The farm was surrounded on all sides by jungle; about one thousand, three hundred hectares were given over to cocoa and bananas. One day our friends asked, cautiously, whether Mauricio would like to take his place as farm manager, so that he could accept an interesting offer from Surinam, his contract in Ecuador could be terminated only if he could provide a successor.

We were full of objections - Mauricio had no knowledge at all of tropical farming, of the care of the plants or of management or export. But our friend successfully countered them all. Certainly he had been to agricultural college, but he had really received his training 'on the job'. He could arrange for a biologist friend to fly over from another farm once a month to instruct Mauricio in the most important techniques.

This was how things happened in Ecuador. A fortnight later we saw our friend off at the airport and moved our few possessions into the farmhouse. It was a big house, with everything one could wish for. And unexpectedly our lives expanded. At the age of twenty-three Mauricio suddenly bore considerable responsibilities - planting and looking after one thousand hectares of bananas and three hundred of cocoa, supervising the harvest - each month thirty-fifty thousand bunches of bananas in varying degrees of ripeness were shipped to Germany, America and Japan - and organizing the transport by lorry to Guayaquil over one-hundred miles away, over roads that were often rendered impassable by the tropical rains. One of the

heaviest responsibilities was that he had to radio a daily estimate of the number of bananas ready for harvesting to our agents in Guayaquil. The financial success of the farm was mainly dependent upon the accuracy of these estimates.

All these new responsibilities cheered us up enormously. There was more than enough work to be done. Every day there was something else to learn. We were enjoying the company of our Dutch neighbours. Often we were surprised by carloads of unexpected visitors come to -spend a day, or even a week, with us. (Fortunately feeding them all presented no problem - they ate so many bananas while looking around the plantations that they never had room for much else at the table). We had many celebrations - marriages, births and the like, with dances, loud music and cheering, as can be imagined in the middle of South America. But on our quiet evenings alone in the farmhouse we were surrounded by the sounds of the jungle which stretched from our farm to the first high peaks of the Andes.

After work or at weekends we would saddle the horses and ride through the deep forests to 'our' waterfall, where all the waters of the area roared down in a single torrent. After the long ride we would cool off` in the icy waters of a natural pool among bamboo bushes and enormous ferns, and return, tired and happy, just before dark.

When we felt like a change from the wonders of nature, we: would take the Landrover through the banana plantations and, following local custom, surprise our old friends in Quevedo with an unannounced visit, or see whether the little cinema had anything to offer. Now and again we took a couple of days off and drove to Guayaquil, just to remind ourselves of what it felt like to be in a town with paved roads and shops and street lighting.

Thus every day was spent busily, all our attention directed outwards, with no financial troubles and little worry as to any deeper purpose in our lives. We never stopped to question whether we were going to spend the rest of our days surrounded by bananas, cocoa, and jungle. However, even if it was more from habit than from any clear intention, we did still keep an hour clear every morning for our Yoga exercises, and this for our own personal development.

After about eighteen months we began to feel that the jungle dampness was not doing our health any good - and 'dead on cue a young Swiss gentleman

appeared one Sunday morning and invited Mauricio to take up a position in an import firm in Guayaquil. We raised the same objections as before, namely that Mauricio had no business experience. However, we had a further interview with the head of the firm, and were assured that it would be possible for Mauricio to learn everything 'on the job' as long as he applied himself sufficiently; so we moved on.

We rented a modern penthouse flat directly on the water-front, and Mauricio became a typical businessman, with two changes of white shirts a day, and an air-conditioned office, and I took a job as tri-lingual secretary to the boss: of a Banana-export business (also learning on the job). A servant took care of the house and shopping and we lived the life that countless people all over the world think of as normal work. evening, passing the time, weekends at the seaside, now and then a good book or a stimulating conversation with friends over a cool glass of wine; a life without much in the way of commitment or consequence.

It took only a few months to feel that this did not match up to our expectations of what life should be. We learnt just enough about business to realize that we were not doing much either for our chosen country or for ourselves, and that in furtherance of our business we were having to act against the interests of people who were as important to us as our far-off business partners.. Slowly we came to the understanding that our ideal of personal growth had to be closely intertwined with the needs of our surroundings. In the daily process of business life, which seeks only its own advantage among wide-spread poverty, discrimination, hopelessness and total self-deprecation, the need for a sense of social responsibility became clearer and clearer. We spent long evenings on the roof of our penthouse overlooking the river Guayas, where the banana steamers were loaded nightly by Sweating and shouting porters, and discussed what we should do to bring all these inner and outer needs into harmony Our friends joined us but only a few of the young business people were inclined to ponder over what results their work was having in their own lives and those of others.

We made friends with an Anglican priest who was working in a poor quarter of Guayaquil, and came gradually to the decision to train abroad in social work and then return with our acquired knowledge and experience to Ecuador to put it into practice. There followed five years of study in the United States and Puerto Rico, and a years work with the Anglican church in

Colombia and Ecuador, followed by a big project in organic farming with methane gas production in a poor area in the Ecuadorian Andes. After these experiences, lasting a decade, we came to the conclusion that from now on our work would be carried out upon our own initiative, without external pressures, and from our own independent understanding of the context and the needs of this country. This had to mean forgoing a safe job and personal security. In this way, by all sorts of winding roads, we came to the project which forms the subject of this book - an alternative school whose origin and growth have stemmed from the finding together of our own needs and those of

At the end of our first year in New York our first son was born. We were utterly fascinated, although his arrival disorganized all our carefully-made plans. So that he would not have to grow up in the metropolis we decided to continue our studies in Puerto Rico. We financed it partly through a scholarship and partly by teaching music; this gave me plenty of time to be with our child. However, like so many other young couples the world over, we found that, after all the years spent pursuing our own adult interests, this little baby managed to make chaos of all our habits, our ideas and the daily planning of our work. This situation blew up into a small crisis when the adorable baby with his daily nap grew into a very active toddler, who never seemed to need moment's rest and showed a clear wish to go his own way, a way that did not always fit in with ours. Then a friend lent us a book by Maria Montessori. After we had read it, gave up two ideas; one, that this baby was some kind of an intruder into our privacy, and two, that it was our duty so to educate him that his urges to move and explore should, early on be regulated and guided into a set channels: by static adult opinion.

On the day that we decided that it was not the baby who had to 'fit in with us, but the other way round. everything took on a new complexion. We felt light and lively; the tantrums which had been the baby's call for attention lessened and finally disappeared. We happily sawed off the legs of the high cot, so that he could climb out as soon as he woke up and go to bed when he felt sleepy. We took increasingly more notice of what was attracting his attention, and enjoyed pulling many of the things that seemed to interest him well within his reach. He was so totally occupied that it was very rare that we needed to tell him not to touch any of our personal treasures. Thus we became aware of the child's initiative in discovering his world. We no longer tried to be a step ahead, to show him, to explain, to interpret, constantly to let him know that we knew more about everything.

Although outwardly there was little change, inwardly everything was quite different. Our son, little as he was, noticed the change: at once, and changed course without a second thought to what Maria Montessori calls 'normalisation'. He was obviously happy to be with us, as we were with him.

Here many a reader may think that we are talking about an 'anti-authoritarian' upbringing. However, I should like to state in advance that this alternative way, which we call 'active education', is: in no way comparable to what in Europe and U.S.A. called 'anti-authoritarianism'. Perhaps I shall be able to make it clear in this book that between traditional, authority-based education, and its opposite in which authority is strictly non-existent, there is a huge area with countless possibilities; a country in which the adult learns to respect the quality of life, the structures of thought and feeling, of the child in each of the stages of growth; in which the child feels in his own being what respect is, and from this: experience becomes able to respect himself and others, including the adults. In the following chapters I hope to indicate: how we can manage to offer our children an environment which allows them to remain full of curiosity, of trust in themselves and in their world; how to allow them so to experience and alter their environment that it becomes really meaningful for them without all the adults having to vanish altogether before the new generation can feel really at home.

This work, to prepare a happy environment for our children, is no easy undertaking. Perhaps we ourselves have experienced so much change that we cannot feel at home in our own world and find our security in bringing up our children in 'tried and proven' ways. However, perhaps this very feeling of 'not-at-homeness', and even more so the thought of a future quite beyond our imaginations, may prompt us to look at newer educational methods. Here the active school has something to offer, based as it is upon neither the anti-authoritarian model nor the traditional discipline-centred methods. In an active school what the children themselves do is just as important as what is offered by the adults. The adults are committed to keep on learning to 'pick up' the genuine needs of the children, and to use all their skills to fulfil these needs as far as possible. Qualities are mobilized in both adults and children, and they and their environment undergo a transformation. In this process the present is so full of meaning that no one needs to wait for the end-of-school bell or the start of the school holidays before they can feel free and alive.

From our inconspicuous experience with our first child there grew, gradually and at first almost by accident, a task which began to actualise the ideals of our youth to live our own lives authentically and to the full, and also to touch and to help the needs of our immediate surroundings and the country in which we live. Reading that first book by Maria Montessori set in motion a whole chain of events a Montessori course for pre-school children at the St. Nicholas Training Centre in London; acquiring Montessori materials for home use; a first play-group in Puerto Rico, and then, when our son reached that age, the initiative of a small kindergarten in Call, Colombia. Despite my lack of practical experience the results, with a growing number of children, were so convincing that the parents, and we ourselves, were amazed.

For example, there was one plump, spoilt little girl who for three whole months would do nothing else at the kindergarten but sweep, mop and wash dishes. One day her very elegant father asked me, seriously, 'Can you perhaps tell me what you are doing with her here?' I felt insecure and inexperienced and tried to give an impromptu lecture on the Montessori method, but he brushed it aside, saying that this did not interest him. 'You see,' he said, 'before she came to your kindergarten she didn't care about me at all, and now she loves me. I just wondered how you had managed it.'

Another, a four-year-old boy, pops up in my memory. For two months he simply stood, or sat, around, apparently interested in nothing, made no move towards any of the materials, and did not take part in any of the group activities. Even when the ball landed at his feet, his only response was a bored glance. He also consistently referred to himself by the name of his elder brother, and to me by the name of his brother's teacher. My as yet primarily theoretical knowledge about 'spontaneous activity in the child' was put very severely to the test, and I often had mentally to clasp my hands behind my back not to try and galvanise the child into 'doing something', and not to let my belief in 'self-directed education' be strangled at birth! For my own sake, I gave him three months. A couple of days before the deadline he threw back a ball that had rolled to him. The next day he threw himself avidly upon every available piece of material or equipment, and showed by his every movement that his 'inactive' observations had shown him exactly how to handle them all. A week later he was the initiator and organizer of all the group activities and all day the place resounded to his cry 'Yo yo yo quiero' (I, I, I want). At the end of the school year his parents invited us to supper and thanked us. They felt that in these ten months their little son had

made such progress as far to outstrip his elder brother (who attended one of the best schools in Cali) in self-assurance, initiative, quickness in observation and reaction, and cooperativeness.

Despite our many positive and surprising experiences with the children in Cali, I did not go any more deeply into educational matters at that time. Our year in Cali came to an end; we left the kindergarten in the care of a good friend and moved to Quito. There we enrolled our five year old son in the German kindergarten, which was not run on Montessori lines but would give him a link with the German language and culture.

If we had been more observant and known more, we would soon have noticed that Leonardo was becoming less happy and secure. We would have recognized his frequent head and stomach aches, his inability to get up in the morning, his daily resistance to boarding the school bus and to putting on his uniform as clear signs of school phobia. But our own wishes and pre-occupations made us blind to the unequivocal alarm signals coming from our child.

When Leonardo reached school age we were embarking upon our organic farming project. We moved to a highland farm about forty miles from Quito and Leonardo went to the Salesian school in the nearest village, eight miles away, sharing the school bench with sixty red-cheeked Indian and mixed-race children, who filled the classroom to bursting point and were kept in line where necessary by the teacher's cane. In this group there were no repressive factors for Leonardo except the frequent teasing that came his way on account of his fair hair. There were, however, plenty of broad backs to hide behind and remain undisturbed. In common with many Ecuadorian children, even today, he profited from the fact that a teacher with a class of fifty-eighty cannot even try to supervise every one. Neither teachers nor pupils have any doubt that school is an unhappy affair, any more than army recruits believe that they are: experiencing 'the happiest days of their lives'. In these crowded and primitive Ecuadorian schools no secret is made of the fact that 'literacy costs blood' (la lettracoll sangre entra). The children armour themselves with indifference and early on with their own lives.

In the five years that Leonardo attended this country school, despite the long hours we hardly ever saw any signs of any school phobia. In the first year he insisted on going part of the (often steel,) way by bicycle; he woke long before sunrise and left the house at six in all weathers, even the often very

unpleasant Andean rain. Afternoons were spent playing of the farm animals the cows, horses, hens, lorries and tractor. He learnt to measure milk and egg production, and dissect many a dead cow; helped when the cows calved and the horses foaled, and spent the weekend with his friends in tents near a ravine so as to watch the condor and the mountain foxes at dawn.

The farm was near a typical Andean village. Once there had been a little factory for making panama hats, but this had moved on. With its mud houses, its non-functioning water and electricity, abandoned square and derelict school house, it was a comfortless sight. The farm provided work for fifty families and a certain amount of hope. The village headmistress asked me to help her set up a kindergarten in an empty classroom, and I joyfully seized upon the opportunity to put my Colombian experience to use in a totally different situation. I introduced a young student to the Montessori system. The essential pieces of equipment were made in the farm workshops. Every child brought a pair of tiles, which, with some boards, were to act as lockers for the Montessori materials, and we amplified this with all sorts of homemade toys and bits and pieces. In this simple kindergarten, to which the children came with their bare feet and runny noses, we could see repeated the classic example of Maria Montessori's first 'Case dei bambini' in Rome. We saw the untended, fearful, silent children slowly become happy and assured people. A year later they were the first children to build a bridge between the teacher and the newly-arrived Indian children in primary school. They made hand signs to the children who knew no Spanish, and showed those who had never seen chairs or tables, paper or pencils~ how to manage these things. Usually the Indian children, after a short time of hoping to become, through school, part of the 'the other Ecuador', give up and revert to illiteracy. The Montessori children took these children to their hearts, helped them with their school work and became their friends.

Five years later when the farm project came to an end, our second son was two-and-a-half-years old. We had had time to read the new work on child psychology, educational questions, neurological research, and the like. Our work had brought us into direct contact with the social problems of Ecuador. We frequently had the bitter experience that it is very difficult to do the basic work with adults which will give them true self-respect as well as their daily bread, and open the possibility for self-help.

On the other hand it had become very clear that small children quickly seize on even the smallest opportunity to renew themselves and their surroundings and to make the best out of anything. So if we wanted to do something positive for our environment and also to use our own talents, everything pointed in the same direction - we must build our little son a proper Montessori Kindergarten, which must not only cover its own costs but those of a parallel kindergarten for poor children. Again we made the furniture and equipment on the farm. We went to Quito to look for a house big enough for our family and a twenty five strong kindergarten. After our years on farms we wanted a large garden also. But Ecuador had become an oil-producing country, prices had rocketed and such houses were beyond our means.

Thus we entered upon the adventure of building our kindergarten in the country. We especially liked the valley of Tumbaco, half an hour on a winding road from Quito. It had been an idyllic holiday place with farms and subtropical fruit, but now more families were moving in, to be near Quito for work and school. We were the first to propose building a kindergarten there. It was such an unfamiliar idea that on the first day only three children came; but gradually the numbers rose as more and more people realized the advantages for their children of the country environment, the ideal climate, the landscape of mountains and eucalyptus trees, the pure air - and, as they were later to discover a new system. based on free choice and a huge selection of materials.

We named the kindergarten 'Pestalozzi in honour of the man who, long before our 'Century of the Child', formulated and practised basic principles which, if really applied in the schools of today, could bring about an educational revolution.

A year later we moved the parallel kindergarten, after four years in Tabacundo, to a country district close to Tumbaco to give the very isolated school-mistress there the chance to share experiences with our growing group of teachers. This kindergarten we named 'Pestalozzi II', and I shall write about them both in full.

2: The Reigning Educational 'Mystique'

In his book *'Celebration of Awareness'*, Ivan Illich writes of an educational 'mystique' which has been a sacred cow to us for two hundred years. This mystique has reached its most towering proportions in Ecuador.

Certainly our newspapers regularly report on the 'dramatic failure of education in this country'. They mean that only about 27% of first year primary-school pupils stay at school the full six years; and they ascribe this to over-crowded classrooms, insufficient training for teachers, and, very occasionally, to an unsatisfactory education system. Often page-long articles complain that even the secondary-school leavers seem to have understood very little of what twelve years' schooling has tried to instil. However, despite these and other complaints, people do not dare to doubt that attendance at school is the only way to social recognition, economic success, service to one's homeland and, finally, personal fulfilment.

The law makes schooling, formerly for six years, now for nine, compulsory; and the last three years have brought in compulsory kindergarten for five-year-olds. However, in the province of Pichincha, the most developed province, with Quito as its capital, there were available only one hundred and fifty insufficiently trained kindergarten teachers when this law was passed; and the situation is even less favourable in the other provinces. The law of the land stands in clear opposition to the possibilities that can bring about a completed schooling. The country people are soonest to give up the struggle for the coveted certificate, and the highest proportion of 'drop-outs' is to be found in the villages. In the state schools in the cities there is desperate competition to get in; and once there, no-one wants to lose their hard won place by any sort of 'bad behaviour'. It is especially difficult to gain a place at one of the prestigious private schools, which have all sorts of ways of keeping out unwanted entrants, selecting by social connections, high fees, and often large subscriptions, psychological tests and insistence on perfect behaviour.

No-one wants to waste his opportunities, and great sacrifices are made to give children a recognised education. In the country it is a question of long journeys on foot, and of ten regular gifts of produce to the teacher, and in the cities there are long bus journeys. On 'Teachers' Day' and on the teacher's name-day or birthday, at Christmas and shortly before certificate time, expensive presents are part of the routine. At the private schools great stress is laid on the parents' appearing, elegantly dressed, at social occasions, organizing bazaars to raise money for the school and frequently seeking

expert consultation with the staff and the educational psychologists. If they do all this, they make life easier for their children. The important thing is that they continually demonstrate that, in matters of education, they trust the highly-paid institutions utterly.

It is an unwritten law that, educationally, school is the final 'court of appeal', with a monopoly on perfection. The parents often have to give assurances in writing that they will use their own authority, with force if necessary, to support the school in its high ideals. In practice, this means that parents feel they have to see that all homework is done, putting on pressure till late at night, so as to placate the teacher next morning. This makes for disharmony at home, for which the children are, unquestioningly, blamed. Even the most loving parents assume that, if their child does not understand the exercises, it must be his own fault. Only a minuscule percentage of parents dare wonder if so much learning by rote and scribbling away really does any good. In general, doubts are shrugged off with such well-worn sayings as, 'Life isn't all roses, and children should get used to discipline and hard work early.'

In Ecuador school uniform is the outward sign of order, discipline and adherence to the educational system. The children soon come to hate it - who likes to wear the same colour and style year in, year out? But, especially at the private schools, the uniform is an important status symbol, which, at any rate at the beginning, they enjoy wearing in public. In all the schools there is great emphasis on this uniform, with daily inspection parades to preserve the honour of the school from shoes or socks of the wrong colour. The 'best' schools even differentiate between 'everyday' and 'special occasion' uniform; but even in the remotest country schools a simple uniform is a pre-requisite for the acquisition of basic knowledge. Every day there is a lengthy inspection of brushed hair, ironed handkerchiefs, starched shirts, shiny shoes, and quite often even clean underwear.

Belief in the power of institutionalized education is almost unshakeable in the adults, and is transferred to the new generation. Any questions are met by the following argument: 'I know how much good school did me, and you can see that it did.'

Last week a mother withdrew her four-year-old from our Kindergarten. She said it was high time to start preparing him for the entrance exam to a private school in Quito, if he were to have any chance of a place. She complained that he had been far more advanced before his year with us - he

had known quite a few letters and been able to count to twenty. The free system had done him harm, he now only wanted to play instead of working; and she was particularly scandalised by his love of sand and water.... This is not a unique case, but an illustration of the fear, here in Ecuador, of losing the entrée into the educational miracle.

But, if we look more closely, what lies behind the mystique? What is the real aim, that disguises itself as a striving for higher learning, morals, culture? Certainly our curriculum is constantly being revised, foreign experts are called in, courses and lectures given to the teachers, new books and schedules printed and new model schools with new methods opened. But the 'hidden curriculum' is unaffected. It is threefold and brooks no contradiction. School educates our children to OBEDIENCE (you must realize that someone else knows best about what and when and how much you should learn), to PUNCTUALITY and ROUTINE WORK. Gaps in knowledge can be plugged somehow extra tuition, or perhaps the possibility of up-grading a bad written result with a better oral one. But any child who does not demonstrate by his behaviour that he is prepared to conform has lost his chance of a school place in Ecuador. (And elsewhere?)

Latterly there has been much talk to the effect that our education system is out of date, that too much is dictated which could be better learnt by better educational methods and there is too much learning by heart, and regurgitating of answers.

But nobody dares tackle in person any of the teachers who rely upon these methods. Even the children, struggling with some senseless piece of homework, beseech their parents: 'Don't go to the teacher, or he will take it out on me!' In this way the mystique about 'good education' triumphs over all the evidence to the contrary. Who would dare to hurt a sacred cow?

And what are the visible consequences of this state of affairs?....All the signs exhaustively described by John Holt in his studies of American children. The clever ones learn all the tricks which can give the adults - parents and teachers - the impression that their education has been a success. An intelligent ten-year-old who came to us from a well-known private school in Colombia put it this way: 'The teachers; thought I was good at arithmetic, and I did too, a little, because I got good marks. But now I realize that I didn't really understand any of it. Because I am using the materials now, I can tell when I have really understood.'

The child who learns most quickly to use words, mathematical symbols, logical conclusions, reaps the most attention and recognition. More sensitive children feel somehow cheated - and in truth, sooner or later someone will have to pay for it. But the outer pride in a knowledge, however superficial, usually takes precedence over the subtler feeling of 'not knowing'

Many children - often the more honest, or the emotionally more fragile - early lose their place in the race. Since there are hardly any alternative systems in Ecuador, many just drop out of education altogether. Others experience a painful demolition of their personalities, become used to living in perpetual fear, and learn to hate all learning. Many begin to stutter, or wet their beds, or develop headaches or stomach ulcers, and not a few turn to drugs.

At twelve, our oldest son began to show clear signs of personal insecurity and school phobia. He was attending a private school in Quito and had been subjected to the cynicism of a teacher who prided himself that only half the class could ever follow the lessons. We gave him the assurance that he could give up altogether if he wished to, and, in fact, for more than a year he did. During this time he regained his old self-assurance and took an interest in everything imaginable-, he then decided to go back to get his 'bit of paper.'

The Ecuadorian system damages not only individuals but the whole country. It creates the proper conditions for a monstrous bureaucracy, which gives work for all those who solve everything by means of words, pen and paper, and more recently computers - even if in doing so they create new and worse problems. The general discontent on a personal level leads to a consumerism which adds imported problems to Ecuador's own.

What sort of an education would we wish to see in a country like Ecuador? When we think, that this is a country that is trying to open new doors but is in danger of being caught between yesterday's values and today's homegrown and imported standards, we must surely wish that our children should experience not only fine words but tangible reality; and that they should be enabled to become people who dare: to take decisions, even when the possibilities run counter to everything that

In 'Memories, Dreams, Reflections', C.G. Jung depicts our situation thus:-

'The individual is generally so unaware, that he has no idea of his own possibilities for decision, and looks round anxiously for external rules and laws that might help him in his perplexity

General human inadequacy apart, a goodly portion of blame attaches to an education which is directed exclusively towards what everybody knows, and takes no account of individual experience. We are taught ideals which we know quite certainly we will never be able to carry out, and which are preached, as part of the job, by those who have never practiced them nor ever will. And humanity, without thinking, just accepts all this.

3: First Experiences In The Pestalozzi Kindergartens

It was time to make our two-and-a-half-year-old son Rafael a kindergarten which could fulfil the basic conditions which corresponded to our own convictions and the way we felt about life and would allow outer and inner to develop in harmony. What we knew that was in tune with our feelings was based on the Montessori system. (I had since added a practical training in London to my theoretical one, and used this opportunity to bring more new Montessori equipment back to Ecuador).

There was no lack of criticism, or well-meant suggestions - was not Montessori long out of date? Would it not be better to look at more modern reformers?! The newest of the new methods are just good enough for South American progressive educationalists - they have just emerged from the laboratories of behaviourism. They achieve astonishing results by the expedient of allowing space for the outer manifestations of human inadequacy while mostly ignoring the less comfortable inner processes. Through their methodical and thoroughly scientific sense of purpose, which concentrates upon the 'correct' reaction to outer stimulation, any individual characteristics which are not measurable are simply left out of account. Certainly their results are far more positive than those of the old 'talk and chalk' system, in which the teacher continually falls victim to the sound of his own voice and, as vividly shown in the well-known 'Pygmalion in the Classroom', sometimes for good but all too often for ill: lets his own pre-conceptions influence the pupils' progress.

The main difference between these methods and our 'active education' is that we do not see our principal aim as the imparting, as quickly and painlessly as possible, of a body of knowledge. For us the all-important task is to enable children and young people so to grow up into this swiftly-changing world that their whole being, and with it their ability to cope positively with changes in their lives, is not undermined but strengthened by the educational experience.

In his writings about the problems of our time, C.G. Jung emphasizes repeatedly that it is our ignorance about our psychic forces and our inner world that makes us vulnerable, or indeed often dangerous, beings. Our fear of the unknown processes that are taking place, often unobserved, in our inner selves, makes us ready prey to all the forces that promise us security and relieve us of responsibility; and we happily give over our autonomy to any external authority so as to be spared the pain of becoming aware of ourselves and experiencing our own inner growth.

So our Kindergarten was not based upon the modern techniques and despite the danger of being thought 'old-fashioned' or 'unscientific' we followed our own feelings, which advised us not to attach too much importance to immediate or quick results.

How then should it be, this kindergarten intended to help little children towards awareness of themselves and the 'colonization' of the world in which they were to grow up? We had no doubt that the Montessori scheme of child development would harmonize easily with an 'education for being'. From the very beginning, Maria Montessori acknowledges all the forces that guide the child's growth from within. She allows the child to sit in the driver's seat of his little vehicle, to allow him to come to know and put into practice all his abilities that will enable him to become master of his circumstances. She shows how Nature guides the child through all the 'sensitive periods' in which he learns to balance out his own content with the surroundings in which he finds himself. She shows: how the senses become the 'windows of the soul', through which the child effortlessly absorbs all that is beneficial to his growth, and 'develops' it in the 'darkroom' of the unconscious mind, showing no interest in what is not immediately relevant to his inner needs. In her earlier books, Montessori's language is more mystical than scientific. Long before the age in which scientific discipline made a systematic study of the growth of the child's understanding and the gradual structuring of the brain, she intuitively

recognized some of the most important phenomena in the growth of human awareness. For example she showed how important a child-centred environment is to growth. She gave the child the right to individual activity, free choice of activities, his own personal rhythm and showed the value of an attitude centred upon the child's growth, where the adult can learn to put aside his own need to be in control of every situation, and try to give the child's needs, for sensory experience, movement and adult attention, unconditional fulfilment.

When the small child no longer has to fight for the fulfilment of these needs, his development (or, as Montessori calls it, his 'normalisation') follows automatically. The child is active without being hectic. His movements become co-ordinated, his being harmonious. He begins to immerse himself in his activities for long stretches without tiring. He respects other people and the objects around him, and seems to feel happy with himself, which also shows itself in an improvement in his general health. Maria Montessori's books have many touching and lovingly described descriptions of this 'normalisation'. Here I would like to write about our own experiences in Tumbaco, and try to describe some of the developments in the children who have shared their lives with us during these last few years.

We were starting out with a method known in Ecuador only at that time by name, but our kindergarten received its publicity from the 'grapevine', and by the end of the first year there were fifty children, and two young teachers whom we had taught ourselves. We earned extra time by money in Quito in the afternoons and sometimes at weekends, and built another hall. The money from the fee-paying pupils covered the cost of rent, teachers' salaries and the parallel kindergarten. One of the teachers looked after the transport from Quito, and Mauricio brought in all the children from the Tumbaco valley. We built a carpentry workshop, and employed a carpenter, who has made our buildings, furniture and equipment, and many pieces for other kindergartens, ever since. Thus the two kindergartens survived that first year.

From the very beginning we were quite clear that 'Montessori in Ecuador', although a very expensive way to teach, was not to be the preserve of children from wealthy families. We made personal sacrifices and found outside work, and in this way financed both the parallel kindergarten and several scholarships for Pestalozzi I, which helped enormously with the

social integration there. However, after the first year we realized that, whatever the financial difficulties, from now on we had to devote all our energies to the work in Tumbaco. Making new materials, talking to parents and to teachers from other schools, training our teachers, therapy sessions with disturbed children, all took more and more of our time. The second year began with seventy children in Pestalozzi I and twenty-five in Pestalozzi II. All the signs indicated that our work had begun to touch upon a real need in the local community.

Perhaps I can try to give a taste of the experiences that we children and adults - met with in these first two years, which finally led us to the wish to extend the possibility of an alternative education to children of primary school age.

A typical morning goes something like this. From seven-thirty a.m. three buses with Pestalozzi signs drive through the streets of Quito and the: rough tracks of the Tumbaco valley. All the children attending Pestaloazzi II live in the same remote village; they walk to school along the country tracks. At eight-thirty a.m. we greet them at the door. These small people climb, effortlessly but with great care for their independence, down from the high steps of the buses. Loud greetings everywhere. Many children jump up to give us a big kiss, others prefer to be tickled; still others, who perhaps have an overdose of adult affection at home, just wave casually and enjoy being left in peace for a change. The teachers, who have also come on the buses, go straight to their 'work-zones' which are allocated on a weekly rota.

The children bring their 'lonchera', their snack, with them, and many who have found the bus journey rather long, or who have not eaten much for breakfast, settle down on the grass or at the picnic table, or high on the climbing frame, and tuck in comfortably, exchanging the latest news, or a hard-boiled egg, or a mango, with their friends. Others put everything in their locker and settle straight away to work or play. Who tells them what to do? There are all sorts of possibilities for them, and every morning they are: faced with the 'tasks' of deciding on an occupation, staying with it as long as their interest lasts, and then finding a new one. The first decision takes place between gate and locker. Will the child stay outside? The morning sun, rarely absent in Tumbaco, is at its pleasantest. Perhaps have a look at the rabbits and give them some fresh greens? Or see whether the dog has had her puppies yet, or whether the donkey is fighting the llamas, whether yesterday's seeds have come up yet?

Over there are a few children in the sandpit; others are digging tunnels in the big heap of sand out front; and others, dressed in bit: rubber overalls, are busily carrying buckers of water from the water table to adorn the sandpit with rivers and lakes.

Or what about the see-saw, the trampoline, the climbing frame, the slide, or the little brook in which a couple of children are sailing their home-made boats? Will the child play alone or join a group or make up his own game and invite others to join in? There are two teachers on duty outside, but they do not seem to be doing any organizing. What are they actually doing? Although they do not appear to be initiating anything, they are everywhere, alert and observant and not in the least passive. One is attending to the children who have just arrived, on foot or by car, and need to be entered on the register. Both are keeping a constant watch on all the proceedings, and seeing that our internal rules are observed - that no child hits or interrupts another, that aprons are worn for water play, that rubbish is put in the bins. They keep an eye on children who might be unhappy and in need of comforting, help bring out equipment, talk to individual children and play with them if asked. Often they are to be seen sitting quietly in the middle of all the activity, observing and now and then writing something down.

Things are similar in the various rooms inside. In the 'old house (in which we also live) there are three rooms. With little chairs and tables, mats, and cupboards full of inviting materials. There are all the well-known Montessori materials for daily life, for sensory experience, for preparation towards reading and writing, all kinds of arithmetical materials, dexterity games, games to play alone and together, Lego and other construction toys, all kinds of natural materials for sorting, comparing or just admiring and touching; also a typewriter, crayons and paper, a comfortable book corner warm from the morning sun, a little living-room with sofa, armchairs, cello and flowering plants. In each room is a 'teacher' who asks pleasantly whether the child needs any help, and who can show him how to use a piece of equipment or play a new game and if necessary remind him to put it back afterwards. It is not always easy to pick out the teacher, for she is hardly ever standing up - she may be kneeling on the rug with a little group of children, or sitting next to a child on one of the little stools and helping him with his work. Her voice never dominates, she is studiously inconspicuous, taking care not to influence the children's atmosphere or to take away

In the 'new house' it is the same. It is a light hexagonal wooden building with large windows all round, through which let in our mountain landscape, the sun and the birdsong. Little tables and stools in the middle of the building serve for all sorts of craft activities - baking bread or cakes, plasticine, pottery, sticking, painting, cutting, weaving, sewing. This is where the 'dirty' work gets done, and many little hands are busily active.

Around the central tables are various 'interest centres' which invite to various forms of work and play - a building corner with bricks of all sizes, shapes and colours; railways and cars; a doll's house with contents; a shop in which the children busily buy and sell; shelves and cupboards with all sorts of craft materials; 'family corner' with dining-room, iron and ironing-board, crockery, sink and knives and chopping-boards for vegetables; a half-hidden corner with dolls, dolls' beds, clothes, bed-linen, baby bottles, telephone and similar accoutrements. Here the children can 'let out' in undisturbed play all that they have stored up in themselves from their daily lives. Then there is a puppet theatre, painting easels, and an indestructible work-bench with hammers, saws, nails and balsa wood. Outside a little play house invites to secret games and undisturbed conversations.

What is it, then, that co-ordinates all these activities? How does a three-to-six-year-old decide what to do and for how long, with whom to make friends, whether to ask for help or solve his own difficulties, or even whether to do nothing for the time being and just watch the others? In this carefully prepared environment, where much is offered, and no adult pressure exerted, it becomes astonishingly clear that in every child who has not been too much disturbed by previous wrong handling, there is a clear inner guidance. This guidance selects the choice of activities, allows him his own rhythm, and lets him find a new equilibrium with each new undertaking. If the child, however young, can follow this guidance, he can be a secure, happy and helpful person, who lives every day to the full. Certainly not all, perhaps only a few, small children come to us in this 'undisturbed' condition. Many have lost their trust in their own inner feeling because of the perpetual interposing and 'knowing-better' of the, admittedly loving, adults around them. Others have not experienced, perhaps from birth onwards, the unconditional parental devotion which could have given them a basic feeling of security.

Before a child can undertake the difficult task of making his own decisions, he must satisfy the archaic needs which are putting pressure on him. It is our

task to follow when we recognize these needs. For instance, if a child has not had enough body contact with his mother, he will snuggle up to a teacher for weeks or months, and perhaps follow her from room to room as her rota changes. He will take every opportunity to sit on her lap, and prefer her company to any of the interesting activities on offer. Our teachers know that these needs: have to be satisfied, as far as it is possible to combine this with their other duties; and experience has taught us that even the most love-hungry child will break free and become independent and enterprising, once he has been allowed enough time to satisfy his old unmet needs.

Another 'presenting symptom' of the typical insecure child is aggression. We will never forget the arrival of two-and-a-half-year-old Laura, who hit out wildly and indiscriminately if any child came near.

We learnt that her parents had been unable to decide, from her birth onwards, whether to separate or to stay together for her sake. They had entered upon marriage with the mutual understanding that both should have their freedom; but when Laura was born her mother soon realised that this rule could no longer apply to her, and felt let down by the husband's continuing to live exactly as before. All the Pestalozzi teachers joined to try and give Laura extra security. The 'therapy' which worked wonders, was that whenever she appeared anywhere she should be caressed gently, taken onto a lap and cuddled for as long as she wanted. Although the home situation remained unchanged, her sick aggression disappeared after a few weeks.

We could not at first understand what made four-year-old Eric so insecure and aggressive. He came from an exemplary family. The mother, an academic like the father, had given up her job to look after the children, and devoted herself utterly to their upbringing. At first she came with him to the kindergarten. It was obvious how close she and her son were; she would look around for something that might interest him, and call - 'Look, Eric, what a Lovely butterfly! Do you see the colours? Look, he is yellow and blue, with a little black. Look, how he flies around and shines in the sun! Isn't it lovely?' He would beam, and answer, 'Yes, lovely butterfly, blue and yellow. Shines. Lovely', and wait to see what his mother would show him next; as she indeed did - a nice game, some interesting craft work, and so on all the morning. Once she stopped coming with him, he was in a sad way. He stood around like a little heap of misery, found nothing to do, and refused to be parted from his anorak. If another child approached, he hit him, then realized what he had done and began to cry.

Children from poor families bring another type of insecurity. They have been told to 'be good, don't touch, don't make a noise, do everything the teacher says', and with all these instructions ringing in their ears, they come to Pestalozzi II, where all the materials and toys are laid out invitingly, but at first they do not dare to touch them. In Pestalozzi I, also, there are plenty of children who have been raised on 'Leave that, don't touch, what have you done NOW?' We have to give these children especial attention. We let them look around and watch the others, perhaps put an arm round them to let them feel our nearness, and quietly describe to them the things or the activities that have caught their eye, without recommending anything in particular. We try to feel whether they are enjoying watching, and whether, in their own time, they are going to be able to decide by themselves upon something to do. If, however, the decision is: obviously too painful - this usually shows in their faces and posture - we give them a choice of two possibilities. We estimate their age and possible interests and show them two different things to choose from; this may well be their first encounter with a clear decision-making situation.

Children from rich families, where there is no lack of toys, but whose real needs have still not been met, often take a long time to get absorbed in anything and derive any real benefit. They touch this and that, pull toys out and do not want to put them back, and cannot decide upon anything. Their movements are uncoordinated and they look sad and bored. However, if they are left to it and only made aware of our two rules (what you take out goes back on the shelves; you must not take another child's toy without his permission) and not compelled to stick longer at any one activity, there is a good chance that they will come across something that, even if only briefly, really absorbs them. This is an important moment. Unexpectedly, they have experienced how it is for a human being when his outer and his inner, that is to say his outer activity and his authentic inner need, come together. At this moment the certain reliance upon the respect of an observant teacher is crucial. All small children still have a healthy instinct for the kind of respect that accepts them just as they are. This feeling gives them the basic security that makes it possible for them to find their own way.

One of the adults' most important tasks, then, is to protect the child when he is having the experience of real concentration. It is so positive an experience that from then on the child will always try to find it again. The occasions will become more frequent, the length of time and depth of absorption will

increase, until one day the child will no longer need the teacher's protective presence. From now on he will be able to concentrate even if the world around him is in chaos. This condition is accompanied by a feeling of peace and harmony, which even allows a child who formerly created chaos and disharmony voluntarily to break off his activity to help another child.

It is harder still (more so than for the untidy or hyperactive children) for those who have already replaced action by talk. They sit there, and among all the activity they do not lift a finger, but talk - not about what is going on around them, but about what Auntie did yesterday, or Granddad said - in brief, about everything but their own experience. These are the children who after several months still cannot find their lockers, never get dirty, never move out of the way when another child comes by with an armful of equipment, do not notice that the buses have arrived to take them home, and who leave their belongings all over the place.

The picture would be incomplete if I did not mention the difficulties experienced by children who have spent several hours each day in front of the television. They find it hard to feel at home in place and time, to become aware of the attractions offered by the environment and to make use of them. We recognize them by their facial expressions: and their movements. Many even ask immediately where the television is! As soon as these children are able to take advantage of the free choice available to them, they do exactly as dictated by nature, which is always trying to bring about a balance between outer and inner. When they watch television they are flooded with stimuli which enter only through eye and ear, while their other organs remain under stimulated. So they use the possibilities of a free environment to give their bodies the necessary balance. The surplus of insufficiently metabolised pictures, which have no relationship to their body-centred experience of life, have to be externalised, that is, acted out. Since none of us force them to do or learn anything in particular, they spend most of their time trying to find a bearable balance. They become Batman or Superman and turn the letters and numbers and bricks and everything around them into characters from the television series.

Our worst case was little Andy. At home there were five television sets, and at least one was always on. For each hour of television, Andy needed an hour's free play. He would stand high on the climbing frame and act out everything he had seen the day before, including all the advertisements, which he imitated brilliantly. He was almost six, and had still not learnt

anything'. Six weeks before the end of the school year, his mother came to see us and asked us urgently to teach him English for the entrance exam to the American school. (At this point I must explain that as far as possible we speak to each child in his native language, and this means that the children hear several languages, and often ask what something is in German, French, or English as well as Spanish. They will often listen to a story in another language, but we do not teach foreign languages in the way that is usual in the 'better schools' here from kindergarten age upwards).

We reminded Andy's mother, 'we warned you when you registered Andy, that we do not teach languages here. You have been at several parents' meetings where our methods have been discussed.' However, the worried mother begged us to make an exception, as it was so important that Andy should go to the American school. We made a bargain: 'YOU see that Andy does not watch any television for these six weeks, and WE will teach him English'. As might have been expected, Andy's parents were not able to keep the bargain, and Andy continued to be Superman. The mother was angry with us and engaged a private teacher. However, in the middle of the following year she asked whether we would take his younger brother. We were astonished - 'But you were disappointed, because we let Andy play!' She admitted it, but said that she now felt differently about the whole affair. Andy was not only the best in all subjects at his new school, but was remarkable for his friendliness, independence and creativity.

This problem with television is not only to be found among the richer children at Pestalozzi I, but also has its effects in Pestalozzi II. Even in poverty-stricken mud houses lacking in everything else, where the whole family sleeps in one bed and guinea-pigs, rabbits and chickens share the only room, there will be, more and more often, a television. If there is no electricity, it runs on batteries. All the attractive and expensive dreams of a foreign world are beamed in massive doses into houses that have not even risen to running water. Long before people have acquired essential things they are subjected to propaganda for new mixers, vacuum cleaners, automatic toys, deodorants, and other luxury goods and factory-produced foods that are unnecessary or even harmful.

Even so, the effect upon the children of the poor country people is less bad than in the towns. Their constant contact with nature and the visible and tangible work their parents do and the life they share with them, with the chores they do in the house or on the farm, gives them roots in reality. Their

reaction to the carefully prepared environment at the kindergarten is a healthy one, once they have overcome their initial shyness about touching things.

In one of our recent monthly parents' meetings, we discussed Jerry Mander's controversial 'Four Arguments For The Elimination Of TV'. This book is the result of years of research into the effects of television upon the life of individuals and of society, and has made an important contribution to the reduction of television-viewing in many Pestalozzi families.

I could describe many more types of difficulty which can rob small children of kindergarten age of their spontaneity; but it seems to me more important to show how an open education neither needs to hush up nor to repress these conditions. Instead, the child is given the opportunity to 'let out' in an acceptable way what lies deep within, and so gradually to learn to trust his own activity.

In our kindergarten the first one and a half hours are spent in free play. During this time the children are faced with the responsibility of deciding what corresponds to their real interests. The adults 'keep a low profile' and deliberately leave the choice and the carrying-out of activity to the children. They must learn for themselves how to deal with tangible reality and what difficulties need to be overcome. The adults supply the materials, demonstrate little techniques, and take care that the environment is really safe for this play.

We adults have to learn just how important it is that we hold back. Our instructions on the use of equipment are accompanied by clear gestures but few words: 'We'll put the block on this table. Now we'll take the cylinders out' (the child's eyes follow the adult's movements as she takes the different-sized cylinders out of their holes and, with precise, harmonious movements and as soundlessly as possible, lays them on the table), 'Now we'll mix them up'. (The child joins in). 'Now we'll put them back in their holes. (The teacher's hands measure the size of each cylinder and the depth of each hole. They put a cylinder in a hole, put a mistake right, and so on until all the cylinders are back again.) 'Would you like to try?' No word about the types of difference between the cylinders, thickness, thinness, height, depth. The important thing is the child's own activity as he learns to experience reality himself, through his own senses. Only later, when the child is suffused with his own experience and begins discovering parallels for himself, will the

teacher take the opportunity for a little 'informative lecture' - 'This is tall and this is short'.

This is how it is with all the Montessori materials, which invite the child to activity and, by refining and calling into play all his senses, not only co-ordinate his movements but also help him to order and organize his little world. In this process both his environment and his understanding take shape, and foundations for intelligent activity are laid.

Monica had absorbedly sorted the little patchwork pieces into pairs; then she ran off into the garden, where I could see her through the window. She began to play with the bushes along the wall; felt the leaves and started pulling them off. An uninitiated observer would have shouted to her to stop. After a while she returned proudly to her place with a whole collection of leaves. She got the patchwork pieces out again and began to feel the surfaces of the Leaves very carefully with her finger-tips, and then to compare them with the bits of cloth. She found similarities and differences and joyfully called the other children to share in her new discoveries.

Of course I cannot describe all the materials that the children use in these way" every day. But would like to emphasize that these materials can be useful only if before coming on to them the child has had the opportunity to store up countless unstructured experiences and sensory impressions. Structured materials can be of little assistance to a child who has been denied free experimentation with many sorts of objects and above all with natural materials, whether by a poverty-stricken environment or lack of knowledge in the adults who have cared for him.

For this reason we are careful to keep on offering our children a multiplicity of new, unstructured material seeds and grains, bottle tops, boxes, cartons and bottles of all shapes and sizes, ribbons, threads, flowers, leaves, roots. If I were to enumerate all the materials that our children have played with in these last few years, the list would go on for ever.

An attractive presentation of structured material is very important, as is the 'self-correcting' element which gives the child independence from perpetual all-knowing adult guidance. With unstructured materials, however, it is the element of surprise that is important. They unexpectedly always present a new challenge and invite to new discoveries and possibilities for play. No-one is angry, however unexpectedly they are used. Anyone who has been

with small (or bigger!) children knows what can result from the appearance of a pair of unexpected boxes - the children try out whether the lids will open and close, whether they will fit in each other, whether you can put one on top of the other and make a tower. Perhaps they will climb in and out of them, see how many children can fit inside, and how it feels with the lid on, or off. Then perhaps (assaulting adult ears) they begin to push them around and play cars; then they make an obstacle course, which ends in total destruction. Other children make them into dolls' beds, or with the aid of colours, glue and other additions into a castle or a hospital or a space station.

Who would dare say whether a child learns more by sitting at a table and working methodically with structured materials or by making all imaginable use of a couple of old boxes for a morning? It is not important which a child does first - what is vital is that he really 'gets stuck into it', that it is a total act. For us, quite simply, this means that the child perceives that he is in a given situation, and out of his own feeling decides upon an activity, carries it through single-mindedly and chooses when to finish. All this fosters contentment and personal growth. Also consideration for his environment requires that he replace and tidy what he has used for his pleasure. Thus the finished activity incorporates as much responsibility, springing from the child's own free choice of activity, and something quite different from persuading the child to do some work and making him tidy up afterwards, while seeing on his face the mixed feelings called into play by such tactics.

With this we come to the question of discipline, a perennial topic of all educational discussions. ~How are they to learn discipline in your free system?' comes the worried question from all the adults. It is true that from the very start we avoid a strong-willed discipline based upon adult authority, and even think it harmful. However, in the active school the child comes up against rigid 'house rules' which have grown out of the necessity to make the place safe for everybody. The boundary to individual freedom is set solely by consideration for one's own safety and the rights of others. The observance of these rules is ensured by adults at the beginning, then very soon by the children themselves. They come to experience the necessity and the reason for the 'restrictions' and tell each other, 'You don't take anything in this school'. 'No hitting.' And so on. From this purely functional discipline, prescribed by the general good, grows the possibility of true self-discipline. Just as an adult engaged in his own creative work often works more intensively and perseveringly than an employee in someone else's business, so does the 'creative' child, who through his activity 'creates

himself' as Maria Montessori puts it. This self-discipline, which grows with each autonomous action, makes the child a person who will later be able to take practical responsibility for the world, because as a small child he has been allowed it for his own actions.

Our functional discipline is not the only aspect that has been questioned by uncomprehending educationalists; they are also surprised that in the 'open system' children with age differences of two, three, perhaps even four years, play and work together and are not grouped homogeneously according to age or grade. In fact structured materials attract different children according to their capabilities, and so bring about a certain amount of grouping. The 'sensory experience materials tend to be chosen by the smaller children, and those which lead up to reading, writing and arithmetic by the older ones. Advanced number material, dealing with figures up to ten thousand, is generally used only by the five-six-year-olds and above.

However, we often see older children playing with the earlier material, as if making a little return visit to their younger selves; sometimes they offer to teach the younger ones, or join in happily with a general game. Or we see the little ones watch the older ones at play, drawing their own conclusions from what they see. In this way the 'open system' uses the powerful dynamic set in motion by vertical grouping - small children learn more easily from older ones than from the more distant adults. Who has not heard a mother ask her older child what the baby is trying to say? The older children can look at the little ones and realize how much they themselves have progressed. They learn consideration for those who are younger and weaker, and now and then, without needing to feel ashamed, they can be little for a while when they

It is true that this vertical grouping offers little opportunity for competition, the wish to be better than the others, to earn more praise, to get better marks. On the other hand, slower children or later developers are not early given the complex that they are 'no good for anything'. However there is still the healthy struggle that each child has with all the forces within him, and in which he tries to do everything today a little better than he did yesterday. Every year we take a small number of handicapped children in the two kindergartens. We can take only a few until we are able to offer each one his own specific therapy, but for all these children the simple possibility of free activity use of tangible materials and company of healthy children is an effective therapy in itself. Many show a rapid improvement when they come

to the Kindergarten and in many cases the parents have temporarily discontinued all other therapy.

Living with these children gives the others valuable practice in consideration and helpfulness. They can often tell far more clearly than the adults what a handicapped child can do for himself and where he needs help. They enquire seriously about the type of handicap and how it came about. We have never seen a handicapped child teased or put at a disadvantage - clear proof that a child who feels: himself respected is able to respect others.

We often remember a little German boy whom I will call Hans. When he was three-and-a-half he had collided with another running child and fallen head first into an empty swimming-pool at a hotel in Quito. After dangerous operations in the American hospital his life was saved, but the transplantation of brain cells promised only uncertain success, and a hope of recovery that could be confirmed only after long years of therapy. Hans and his mother spent ten months having treatment in Germany before he could return to his family in Ecuador. When he came to the kindergarten he had regained only a small vocabulary. He had only small use of his right arm and leg, limped uncertainly around and could not manage stairs. He could only move his right arm from the shoulder, and his hand was bent inwards and felt lifeless and cold. To protect the fist-size hole in his skull he had to wear a padded helmet at all times. His medical certificates said that his length of concentration was one or two minutes, or five with the promise of reward.

From the very first day, Hans was drawn to the water table out on the lawn, but refused to put on a rubber apron. To avoid a daily battle, we allowed him to get wet. It was unbelievable to see the persistence with which he poured water from one container into another, invented new activities with funnels, little spouts, sieves and hoses, and found his crippled arm all sorts of new things to do. In a month his concentration at water play had risen to a whole hour, and anyone who tried to disturb him before that time was simply sent away. After he had finished he would allow an adult to take him on her lap and stroke and massage the crippled arm and ice-cold hand. He cried and laughed and began to talk. Later he also began to play with sand and many other materials. At the end of the year, when he returned to Germany for further treatment, the doctors there could hardly believe that it was the same child. He had not only increased his vocabulary enormously, but also become able to use his arm in many ways that the doctors would not have believed

possible. During the next year Hans learnt with whom he should speak Spanish, and with whom German. He is an impressive example of how nature makes new and unexpected developments possible, if only we allow the child the freedom to choose how, how much, and how long, according to his own inner feeling,

Thus the main emphasis in our kindergarten lies upon children's many self-chosen and often self-invented activities in a well-prepared and co-ordinated environment. Later, in the second half of the morning, the adults offer organized group activities. At the regular government inspections we see the puzzlement of the inspectors, who are used to rigid time-tabling and are looking for what they could recognize as such. When they see these group activities they are visibly relieved. 'Oh, you do have a timetable! I'm so glad. And down it goes in the notebooks.

At ten o'clock Mauricio goes through the various rooms and gardens singing out that it is break-time. Anyone who is ready to stop helps to carry the tables and chairs out onto the grass; anyone who would rather continue takes his work into a quiet room. The children carry jugs of fruit juice and biscuits out of the kitchen, through the living-room, up some steps and along the passage into the garden. In the first few weeks there are several puddles, but they get cleverer every day, and soon there is hardly ever an accident. We ourselves have long been used to it, but visitors who know only the destructive side of little children are amazed. One visitor was absolutely overcome to see our tiniest child, not yet potty-trained and dressed only in his nappy (having stuffed all his other clothes into his locker), climb onto a chair, fetch down a full jug of juice, and make his way to the garden in perfect control without spilling a drop.

After the break Mauricio sings out the beginning of 'project time'. In the 'new house' there are lovingly prepared materials laid out for craftwork, painting, sewing or weaving. For these activities: all the children work with the same technique and similar materials, and most of the teachers are available to help. Anyone who wishes to take part must use the technique and materials ordained for that day, but what they will actually make is not decided beforehand. participation in the project, as in other work groups, voluntary; most children are enthusiastic, but others show no interest and prefer to continue with their own work. Many ask what it will be today before they decide.

A little later comes another invitation - depending on the day of the week there is music or dance, singing, instrumental music (following the OKFFE method), music-and-movement, free dance or folk dances. These are structured group activities, and anyone participating has to submit to the discipline without which such a group cannot function.

The morning ends with a story, told in different corners in the different languages. Most of our children speak Spanish but it seems a good idea to us to let the others have a story in their own language.

This is the end of the children's day. Many find it hard to part from their work when the call comes for home time, and reluctantly get their belongings together to climb into the bus. All the teachers help so that this difficult moment does not develop into a 'stress situation', and the happy feeling of the morning can remain unclouded.

4: Effects Upon The Adults

Up to now I have attempted to give a picture of the genesis of the Pestalozzi schools; how it was the immediate need to create a possible way for our own children that aroused our interest in education as a whole. We found our first alternative in the philosophy and method of Maria Montessori, and built upon this a possibility which promised satisfaction for ourselves and others. However, we were soon to discover that not only for the children, but also for ourselves, a process had begun which was to uncover new needs, stir up new restlessness, force US to Seek out new answers and new equilibria, and that is probably still in its beginning stages,

We repeatedly showed our teachers and parents a Dutch Montessori film which can be hired from the Ministry of Culture. All who saw it were deeply impressed by the good taste, orderliness, attractiveness and harmony of the people and their surroundings in this Montessori atmosphere. We felt inspired to follow their example, not only to create a beautiful environment, but ourselves to become model Montessori teachers, nicely dressed, always peaceful, friendly, secure, surrounding ourselves with clean, tranquil and friendly children, and marching forwards to perfection and higher learning.

On of our teachers, a lady of over fifty, had been a secretary for twenty-five years and brought up five intelligent children; she had felt the urge 'to do something that would really satisfy her from within'. After her first year with us she admitted to me that she had tried for months to imitate the way I was with the children. It had cost her a struggle to realize that this not only was impossible, but also harmed her relationship with them. It was only when she had won the struggle simply to be herself that the children really began to trust her. And it was only then that the process began which will be described in this chapter - that the adult begins to observe herself, just in the same way as she learns to observe the children, and to ask 'Am I really being myself in this moment, or am I imitating?' And soon follow other questions: 'Why does this child attract me more than that one? Why do I have days that I love being with the children, and days that I find it difficult?'

Sooner or later we and our teachers found ourselves faced with the challenge of being totally genuine with the children. This meant that we had to learn to come to terms with ourselves and our own unconscious impulses.

Intuitively at first, later more consciously, we recognized the importance of giving our teachers a regular opportunity to discuss their daily experiences in the first year it was an informal occasion. We air: lunch together once a week, and talked over the practical aspects of the work, planned new projects, sorted out transport, and other such things. impulses. However, we soon found that the behaviour of individual children, and our own reactions in tricky or puzzling situations were causing us concern. It did not always seem appropriate simply to apply 'Montessori methods'; we saw--the need to open up new avenues and to do our work creatively. Over coffee we would find ourselves exchanging experiences, personal worries, fears about making mistakes, positive discoveries. From these informal conversations the wish arose to start a study group to talk over questions of education, child psychology or such matters as might be important to the participants in connection with their work or their own development.

By the beginning of the second year, two regular sessions each week had become tradition, and were accepted as such by our new arrivals. We felt like a working unit. Many coffee-times and lunches spent together led us to exchange the results of our studies with growing interest, and to apply them to the children and to ourselves. The constant comparison between the two kindergartens with their differing needs gave rise to much fruitful pondering.

The study group was soon joined by a small group of parents, who were interested in extending the kindergarten into an infant department. We investigated the general state of- infant teaching in Ecuador, in the light of the discoveries of modern child psychology and proven alternatives in other countries, and looked at these in the light of the special conditions pertaining in Ecuador. shall describe later the way in which these studies eventually led to our own alternative primary school. Here I should like to write about the small, and greater, crises in these adults who had now begun to explore, with growing commitment, the question of an alternative education.

As the kindergarten, and later the primary school, grew, so did the number of teachers who came to share the responsibility. In the past year we were twelve, excluding Mauricio who is; headmaster, chauffeur, therapist, father to all - in whatever capacity he is needed. During the past two summers we have held introductory courses to the active system for twenty-five interested parties, and our latest teaching recruits have come from this course. It includes about one hundred and twenty hours of theoretical and practical instruction, discussion, introduction to the ORFF musical method and to preventive medicine, followed by a two-week teaching practice. It leads to a diploma recognized by the Ministry of Culture.

During these courses we have the opportunity to make personal contact with the participants. The essays, discussions, way of using teaching materials, and private conversations, help us to form a picture of their personalities and ways of working. All the same, after a few weeks a teacher can come to realize that it can be very painful, day in, day out, 'to be one's-self'. Many find themselves in an existential crisis, and in need of help. As our group of teachers grew, we began to feel the need to take some responsibility for our colleagues, especially if they were showing signs of an approaching crisis. Often a personal chat, a meal shared together, or a day out, could keep open the channels of communication that were not always accessible in the large staff meetings; and in this way we have more than once been able to prevent a teacher from giving up the work with herself and the children.

The study groups have also changed. Because we all wanted to keep up to date with new research and developments with the open system outside Ecuador, we sometimes had a formal session with written papers followed by discussion. Our new intake in the third year found this too hard; so we tried to leave everything open and asked each teacher to give in a short summary of books read, so that the group could decide which ones to

discuss together. Unfortunately this 'free system for adults' was condemned to failure, because only a few could work without direct pressure, and after a few months we returned regretfully to the old way. The results were, understandably, far less satisfying than they had been when each one had joined in from genuine interest and thirst for more knowledge.

Last year things went better; the contributions were far more coloured by personal interest and far livelier. Some of our teachers visited a number of state and private schools in Quito and in the country and brought back impressive experiences and valuable material for comparison.

But despite all our efforts to make this work with small children meaningful to adults on their own level, and prevent them from becoming mechanical through lack of understanding, we still find it difficult to be sufficiently related to meet the children on their own level. We constantly become aware that, even if unconsciously, we adults equate work with tension. As soon as we relax, our own unmet needs rise to the surface. Thus the teacher in the open system is in a process of re-education - she must learn at one and the same time to be relaxed, and to put the children's needs before her own.

The picture would be incomplete if I did not mention the effects upon the parents who send their children to a Pestalozzi kindergarten. What motivates parents to send their children along the ill-made roads to a distant kindergarten, where there is no uniform, no drill, no school bell, no homework, and from whence the children often return dirty, with wet feet, hair plastered with sweat, and answer the question 'What did you do today, darling?' with 'Nothing' or a laconic 'Played'?

With Pestalozzi II it is simple - the children can get there on foot. Here the parents do not worry ever much about 'alternatives' but thankfully avail themselves of the opportunity. (They do, however, first check that there is no question of a foreign mission, or even a communist enclave).

With Pestalozzi I things came in stages. The 'first wave' consisted mostly of children from Tumbaco who had no long journey to make; then some from Quito, whose parents found the country surroundings idyllic and healthier for their children. Many parents put trust in us personally - partly because many Ecuadorians are fascinated by anything that seems to come from abroad. Some were old friends who had always been interested in our ideas.

The 'second wave' was different again. Many parents thought of 'Pestalozzi' as the new fashion and did not wish to be left out. Others had heard that the Montessori system taught the 'three R's' particularly early - which for some families in Ecuador represents the best guarantee of a successful career in, for instance, law, medicine, or management, with its key to a secure, respected and fairly comfortable existence. However, there were others who had themselves as children suffered under the authoritarian system. Perhaps a church school had taught them to hate religion, or too many beatings had put them off learning of any kind. Many had had some contact with psychology, and begun to wonder why their formerly happy children had become so joyless and mistrustful after a year's education. And there were parents who simply followed their intuition and felt that in Tumbaco their children would be able to be themselves and gain beneficial experience. There were also domestic servants who had noticed a change in their employers' children (who now tidied their rooms, wanted to help in the kitchen, and began to treat the employees and their families with respect). These began to take an interest in this type of education and came to ask about places for their children.

With all these different backgrounds, our children bring to school all sorts of different customs, interests and attitudes. Some have no bathroom at home, and use the garden until someone explains the use of a toilet. Others are terrified of getting their clothes dirty. Many have never done anything for themselves, because they have a maid at home. Some come with a satchel full of exercise books and insist on filling them to satisfy their parents. Now and again we find children who find every little thing too difficult, and some who do not even know what a grasshopper is. Some come burdened with difficult conflicts, and discuss in the sandpit whether there is a God. 'My Granny says I must pray every day, and my Daddy says I mustn't believe her because there isn't a God. What do your family say?'

Towards the end of our first stimulating year with the children, it gradually dawned on us that each child, in a sense, 'brings his parents with him', and that we must consciously include them in our work. We began to hold parents' meetings in Tumbaco's only respectable restaurant once a month, offering the parents an introduction to the principles of the as yet unknown open system. In the discussions that followed, many parents showed a great need to talk about their own problems, and often were not able to separate purely personal matters from those of general interest. In the following year we circulated duplicated information sheets before each meeting and made

these the basis for the discussions. Now and again we invited speakers from the University. Later we gave the parents the opportunity to see and use the teaching materials, so that they could have a feeling of how children learn by handling tangible things. Sometimes the parents brought subjects for discussion.

All this helped us to draw the parents into the process through which their children were passing so easily and naturally each day. They were often stimulated to further thought and asked for private interviews and advice about their worries with their children. Suddenly everything snowballed. Not even our Sundays were safe. We tried to cope by giving separate interviews, one in the office and one in the living-room, while the waiting children enjoyed themselves in the kindergarten and did not want to go home. Unexpectedly we had become confidants, father confessors, marriage guidance counsellors, and a Sunday excursion for an enormous unforeseen number of people. Even when shopping in Tumbaco or Quito we would be asked for advice, or begged to come over because a whole family and its grandparents and aunts had come to crisis point about the children's education.

When our own little son, for whose sake we had founded the kindergarten, made an appointment through the secretary to see his father, and booked an hour of play therapy each week, we realized that things had gone too far. We pretended to be away at weekends, and introduced fixed 'office hours' for parents; even though not all were able to keep to them, this helped to stop our own family life from being completely over-run.

What is this phenomenon? Perhaps the most important reason for this need to discuss is that in our modern world there is too little opportunity for private conversation. How many visits to the doctor or psychiatrist are made simply to satisfy the need for a situation in which one can talk about oneself and at last someone - even if he gets paid for it - will actually listen? Certainly these parental discussions had something of this element; but they are also witness to the insecurity and confusion into which our own children can catapult us when their kindergarten gives them an environment in which their needs are taken seriously, whereas at home they live with people whose own needs are given priority.

One three-and-a-half-year-old said to his teacher, 'At home I go in my pants, to get even with my mother. Here I'd rather use the toilet'. This boy's mother

slapped his face, and he shouted back, 'In my school, we don't hit'. The next day she removed him. She was not prepared to give up her way of treating him, and he is now in an army school.

Despite our efforts, many of the parents do not realize that the active system offers enrichment not only to their children but also to themselves. They throw away the information sheets, never have time for the parents' meeting, and send their children to a traditional school as soon as they are old enough. Others are well aware of the danger that they may come into conflict with their own upbringing, their families, and the values held by their friends, and they remove themselves and their children to safety, often with an excellent excuse - 'The roads: are too dangerous', or 'The change of climate makes him ill', or 'Mauricio smacks the children', or even 'I hoped he would get a socialist education because it is an alternative school'.

But others, often unexpectedly, get caught up in the 'process' They take the opportunity offered by life with the new generation, to feel like a child again, to see life through the eyes of a child, and seek new possibilities for old and young to be able to live together happily. These new ways do not always harmonize with the advice from grandparents (who are very important in Ecuador) or with long-held convictions and habits, or even with the opinions of contemporaries. One mother expressed it very drastically: 'Since my children have been at Pestalozzi. I have changed my friends.'

But what is it that is so bad, that sometimes throws the Pestalozzi parents quite off balance? All the study groups and discussions, all the invoking of Montessori, Piaget, Janov, Bettelheim and similar writers, had one aim only - to make it clear to the parents: that their small child is a person worthy of respect, even if sometimes it is difficult to understand him; that they harm him and themselves if they insist upon using authority to protect themselves from his 'intrusion' into their lives, or try to shift the responsibility for his well-being to specialists, whether teachers or psychologists.

We try to make them aware of what causes the must conflict between adults and children; that adults live under the hectic pressure of modern life with a rigid timetable, and have to save on work and time simply so as to 'keep up': how they take short-cuts with thought and feeling, solve all their problems in theory before putting the solutions into practice; how logical thinking has,

for the most part, replaced feeling, and how everyone has their own fears and worries to contend with and seldom finds really satisfying solutions.

Contrast the world of the child; a timeless rhythm of life lived in the present moment, the need to move, to touch, to make a noise, to try something new; to do without a definite aim, simply out of the need to do, which feels aim enough in itself; an inexplicable repeating of seemingly useless actions; the frequent inability to be aware of the needs of others, particularly those of adults. Added to this the child's strong will somehow to achieve what he feels to be his 'inner necessity', which is often incomprehensible to an adult.

The tools used by adults and young children are also quite different - the adult works with symbols which the child cannot understand. The child expresses himself in play, and the adult cannot understand and seldom has the wish to enter that world. The adult is master in a world of many objects and complicated machines whose use is too difficult or dangerous for the child, but which always fascinate him. The child feels at home in a world of fantasy, which to the adult seems infantile or even dangerous. The adult is happy with abstractions and the logical explanations to which he treats the children; they, on the other hand, need the opportunity to prise out the mysteries through their own activity and to make their own discoveries.

Thus the generations live in conflict. At first the adult has the advantage - he is bigger, more decisive, has authority' and experience and controls the situation. But it takes only a short time for even the youngest children to find their own ways of protecting themselves and their world. Some go in for obedience and pleasing, some for rebellion; some attract the attention of the adult world by lies, tears, or quarrels with their siblings; some eat too much, and others not at all - the list is endless.

In these common situations, found 'even in the best of families', what we advise is that the parents make the first move. We advise them to take the children as seriously as they would wish to be taken themselves, and that, without becoming 'doormats', they try to understand what the child's real needs are, and then, as far as is possible and without upsetting everyone else, to fulfil them. When the parents set themselves to follow our (often purely practical) advice, they enter upon a process that brings thought and feeling ever more into contact with each other. They gradually come to an understanding of the secret life of their children, and thereby of their own, as far back as their own childhood. In their daily life they see that small

alterations bring great success, and can build a space for themselves and their children in which both parents and children can respect each other and feel happy.

'Since I began to announce the meals ten minutes beforehand, they are far more harmonious. The children come happily to the table, eat without making a fuss, and we all enjoy our time eating and chatting. One good custom results in others, and almost unnoticeably the 'battlefield of the generations' becomes a family in which everyone, including the visitor, feels at home.

However, we have to recognise that the doubts do not vanish altogether, and that parents who thought themselves quite used to the 'new system', and have been able to give good advice to their friends, can feel quite bewildered in a new situation and appear for fresh consultation. One continuing anxiety is how the children will manage the transfer to the traditional system. We try to reassure them that experience has shown that children from the open system are extremely adaptable, and manage the transfer without difficulty, usually becoming exemplary pupils. However, there are still parents who have lost all faith in traditional methods, or have themselves had so bad a time that they wish at all costs to protect their children from a repetition. They have been and still are a great support in our building up an alternative primary school. Before I report upon this new experience, however, I should like to mention two areas of research which have directly influenced our work in the kindergartens and the primary school and have given us many helpful explanations and indications.

5: Education And Feeling

What do we actually mean when we speak repeatedly of the 'needs' of small children, and why is it so important to respect these needs and help to assuage them? This question, central for an active school, finds its dearest answers in the work of Arthur Janov. Before he 'discovered' his well-known Primal Therapy, he worked with various methods of analytical psychology for seventeen years. Now he directs the Primal institute in Los Angeles, which has a research department led by the neurologist Michael Holden. Together they wrote 'Primal Man', published in 1975, in which is to be found much of the greatest importance for our interaction with children.

Particularly interesting is the assertion that our inner tensions in everyday life seem to stem from emotional experiences from childhood, or often even from before birth; The case studies bring us the disturbing recognition that these 'cases' are constantly repeating themselves today, before our very eyes, in our own children and those with whom we come into everyday contact - in the supermarket, the doctor's waiting-room, at friends' houses - without anyone noticing that all children are being subjected to experiences which are going to shape their lives. It becomes extremely clear, that it depends on us whether our children will grow up carrying the same burdens as have weighed our own lives: down. It is a question of how we bring our children into the world, how we treat them, what our expectations of them are, and what kind of an environment we make for them.

I will try to explain my understanding of these processes by a simple sketch of the brain structures which register all our experiences child co-ordinate our conscious and unconscious activity. perhaps even this sketchy understanding can help us as teachers or parents. No one can be a doctor unless he is conversant with anatomy and physiology. Whenever we work with living beings. We must recognize the need to know something about their physical needs and characteristics; but most of us have become parents without really learning about the nature of these children who have been entrusted to us. Even teachers who have consciously chosen their profession often know far too little about the organism that is to metabolize -all the material that is fed into, it, often as decreed by higher authority and without considering the recipients'

It would be hard to understand our daily practice in the Pestalozzi kindergarten or primary school, other than in connection with Holden's 'three brains'. The oldest of our brain structures, which we have in common with the insect kingdom, is already fully formed in the embryo. This is the 'reticular brain', which, according to Holden, registers all our experiences in the womb from the sixth week of pregnancy onwards. These experiences are inevitably coloured by the physical and emotional life of the mother. All positive experiences are fully integrated and further the healthy development of the organism. Negative and possibly harmful ones are blocked off, and compel the organism to find avoidance manoeuvres and substitute solutions. It is these negative experiences that are responsible for our psychosomatic illnesses. Once this development is complete and the reticular brain is fully functional, it takes charge of all the functions essential

to life such as circulation of the blood, breathing, digestion, etc. At this time the new organism gives the signal to the mother's body to go into labour; and this is the first act that is 'willed' by the new organism itself. Already, at this important juncture, the new being can undergo his first disappointment, if the birth process is started off from outside.

Birth itself is known to be a critical phase for the new being. If it goes well, with the willing co-operation of the mother, it can be registered as a strong and positive experience. In the birth canal the child is subjected to strong stimulation, extremely important for his later life, of his skin, muscles and internal organs, and comes into his new environment with all senses aware and ready to receive all the new impressions. A second brain structure, dormant until now, is called into action by this powerful experience: the limbic brain, which from now on takes the responsibility for all the experiences which bring the child into contact with the outside world - his sensory impressions, all his many motor activities and emotional experiences. It is easy to understand that a difficult or non-natural birth will teach this newly awakened brain its first 'emergency measures'. For instance, a child whose umbilical cord has wrapped itself round his neck will try to remain safe by holding back or keeping still, and in all difficult moments in later life he will unconsciously repeat this reaction. Another, whose mother has a long labour and who cannot come quickly enough out of his now dangerous environment, has to use all his strength to break out and may well later be the type of person who rather than 'seizing up' in a difficulty, will lash out wildly around him, or frantically flee into the open.

It is for such reasons that more and more women and doctors are opting for giving birth naturally. The mother, often the father too, prepares herself by weeks of discussion and relaxation exercises, for this; important experience, which can be so decisive for the child's basic attitudes to life. The mother learns how to share in making the birth a strong and positive experience -for herself and the baby. The doctor forswears the advantages of a modern labour unit, and the child is born into a warm and softly lit room, without sudden movements or loud noises, and laid to his mother's breast even before the cord is cut. Mothers who have experienced these 'natural births' assure us repeatedly that these babies have a great advantage over those born in a modern hospital ward. They sleep, not with clenched fists, but with wide open hands; they startle less, suffer less from colic and settle themselves more easily into a regular routine. It has been observed in France that all

children born by the Leboyer method are ambidextrous, and we have noticed the same with American Indian children who are usually born in a dark mud hut. Is the 'right-or-left-handedness' which we assume to be normal perhaps really the result of a shock reaction?

Development of the brain structure and levels of consciousness

1: cerebral cortex (cognitive level)

2: limbic brain (affective level)

3: reticular brain (physical level)

From birth on, the Limbic brain, which we have in common with the higher mammals, registers all experiences, co-ordinates new experiences with previous ones, and thus unites in its one structure the three processes of feelings, sensory impressions and movement. If a child has not received enough love, this lack can show itself in uncoordinated, tense movements and diminished sensory awareness. Or, on the other hand, if his wish to move is frustrated or his senses do not receive enough stimulation, this may issue in a disturbed emotional life. It is the manifold and continuing contact with the environment that gradually brings the limbic brain to full functioning, a development that lasts until the child is seven or eight. It is this functioning, together with that of the reticular brain, which is responsible for bodily health, which gives our actions the necessary drive, direction and depth for the rest of our lives.

The cerebral cortex, the third, 'new' brain, (that makes us 'thinking' beings and gives us access to abstractions such as speech, symbolism, logical conclusions) lies above the other two structures, and starts to function only hesitantly, primarily in the service of the emotions until the child is seven or eight. Its most intensive development happens between seven and fourteen, and will be the subject of the next chapter. In our work with children the importance of these first seven years cannot be over-emphasized. We must constantly remind ourselves that a child's brain structures; are not yet fully developed. Our 'educational efforts', then, are only of use if we are prepared to fulfil the needs of the growing organism; and to try and avoid creating blockages and wrong developments. Nobody doubts that a growing body needs healthy food fresh air and cleanliness. In Europe one can see well fed babies put out in their prams in the fresh air, and brought in only to be fed or

have a nappy changed. Everyone knows that sick, under-nourished children do not do well at school; the lack of food in the Third World is of deep concern to us and we see it as our duty to try and help.

But there is still too little awareness about the function of the limbic brain and the needs to which it gives rise. It is here that lies the importance of Janov and Holden's work, and the use to which we can put it to enrich our relationships with our children.

It is simple but vitally important: every growing organism has needs which must be fulfilled if later problems are to be avoided. Every unsatisfied need gives rise to pain which creates a 'red alert' all through the body arises from hormonal secretions, accelerated heartbeat, raised temperatures altered brain-waves. The effect is the same, whether the pain arises from physical or emotional hurt, if it is too strong or long lasting the organism has to defend itself, and it does so by blocking off the signals in the relevant area of the brain. The original need remains unsatisfied but the organism is no longer aware of it.

From then on the organism shuts off access to the painful experience, so as to prevent a repetition of the dangerous bodily reactions. Further painful experiences are poured and shut away in a 'pool of pain' (which can, however, overflow in really critical situations). Through these manoeuvres the organism appears to live on undisturbed but there are certain alterations, which often go a lifetime undetected by the person concerned.

The aim of this 'blocking' is to relegate the pain to the unconscious, where it cannot be felt; but to maintain it, the organism has to use energies which could be better used elsewhere. This produces tension, which often becomes perceptible only when it issues in physical discomfort - backache, stomach trouble, headaches, and so on. It is often easier to recognize these tensions in someone else - we hear his shrill tone of voice, wonder why he never stops talking or seems compelled to make jokes all the time; in fact we may accept many of these signs of inner tension simply as: part of someone's personality'. But these tensions gradually bring us away from our original way of being, in ways that remain unnoticed unless they take recognisably pathological form. All our unmet needs and their accompanying sealed-off pain are still present with us night and day. Since they have not found their original fulfilment, they press: us at every opportunity toward substitute satisfactions. They make our children into people who constantly need lieu

sensations' to take the place of well-integrated feelings. They make us people ever on the search for something new, something more, and never really content. Whenever we look carefully at ourselves and others, 'normal' people as well as 'neurotic' ones, we find scores of signs of this discontent, which seeks for substitute solutions. These observations usually remain at the level of impressions, of which we become aware only when they irritate us.

But what are these true and original needs which we as adults must try to satisfy in the small child, to avoid tensions arising and to help promote optimal development? It is not easy for us, teachers or parents, with all our efforts to transmit culture to our children, to accept that the most important needs of the under-sevens are actually quite primitive. It shocks us that we share them with the primates - the need for bodily contact, movement and many and varied sensory impressions. We often find it extremely hard to fulfil these needs for our children, and in this connection our intellect and education often cause us confusion. How often do we not see intelligent mothers put their babies out in the fresh air, and let them cry there until they fall asleep from sheer exhaustion!

When we say in the kindergarten that a child 'has not had enough mother love', this does not mean that the mother does not love her child, but that she has denied him her bodily contact at a stage when he urgently needed it. This unsatisfied need for bodily contact often remains with the child for the rest of his: life. If the small child's mother has not cuddled him enough, or has chosen the wrong time for it, has not spontaneously stroked and cosseted and kissed him, he will gradually convert these needs into others which she finds easier to satisfy. Perhaps he will become a 'clever' child who can hold intelligent conversations early on; perhaps he will try to attract his mother's attention by painting in vain, and the original need for bodily contact still continues. In I pretty pictures, or learning early to write, or play the piano. But all this adolescence it may find its first fulfilment with a girl (or boy) friend and be confused with 'true love', or 'great sex'.

In South America it is still easy for mothers, as long as they are not trying too hard to be 'modern', to give their children the necessary bodily contact; the indigenous culture still encourages it. The Indian mothers carry their children on their backs all day, and sleep with them in bed. Even though the 'progressive' Ecuadorian tries not to keep up 'Indian customs', she still finds it easy to pick up and cuddle her child when he cries. A whole family

structure - grandmother, aunts, older brothers and sisters, friends see to it that the baby is carried around, rocked, played with, stroked. They sing, talk, laugh and play with him, and when one of them is tired, another takes over.

However, when we realize that the same early structure of the brain takes care of feelings, movement and the senses, we will see that not even such tireless devotion gives the child everything. Here it is interesting to compare the educated white Europeans and Americans, who often deprive their children of close bodily contact but give them every chance to develop mobility and independence, encouraging too early self-sufficiency and exploration of their surroundings. The babies do not always want quite so many opportunities, because the root of all personal security lies in the arms of their mothers. We often see these children spurred on to 'conquer' the world and prove their courage and enterprise; daily in the Kindergarten they appear, extremely active but also aggressive, and more ready than other children to break out into tears and recrimination when things become difficult.

By contrast the traditional Ecuadorian mothers, grandmothers and aunts, find it hard to give the beloved baby enough independence. The Indian baby is still tightly wrapped in cloths and bands long after it could be crawling and reaching out for things. The mestizo child has no chance to do anything for himself - he is fed until he is five or more, carried when he would like to run and anything he reaches out for is put straight into his hand. When these children arrive in the Kindergarten, they do not need to be close to the teacher all the time, but at the beginning they show little enterprise or curiosity. However, in a difficult situation they find it easier than white children to keep calm.

Thus there can be no doubt that the crucial skill in looking after small children is to give them, at the right time and in the right way, as much security and body contact. and as much independence and freedom of movement as they need. But how can we mothers manage to do the right thing in every situation, when we are barely able to understand our own feelings. A little while ago an interesting experiment was carried out in Mexico with a number of mothers and their newborn children. Immediately after the birth they were, in different proportions, separated or left together. It transpired that the most critical time was the twelve hours immediately after the birth, not only for the babies but particularly so for the mothers. If a mother can have body contact with her baby during this time, a specific

sensitivity can develop which gives her a natural understanding of her child's needs - for instance she can more easily tell whether her child's cry comes from hunger, overheating, stomach-ache or other sources, and it is easier for her to attend directly to his needs. However, mothers who are separated from their babies after the birth do not develop this empathy - just as an animal will not recognize her young again if they are taken from her at this time. How hard it is for us 'modern' mothers naturally to perceive our children's needs. and how great our need of specialist advice!

Finally, an important question presents itself - how can parents who are themselves full of tensions and unresolved needs have an immediate feeling for the needs of their children, when all that arises when they open their feelings is their own pain? Janov gives many examples to show how often and to what extent parents, with the best of intentions, project their own unsatisfied needs onto their children. Among the poorer classes in Ecuador there is a whole society of people who wish to give their children the education they could not have themselves. In one of the elite schools in Quito there is an intake each year of the most intelligent pupils from the city's poorest schools. After many tests and examinations, selected children are given a first-class education up to school-leaving age, and the hope of university education abroad. More than once I have observed scenes such as this:- a group of ten-year-olds waiting for their entrance tests, and around each terrified child a swarm of relatives overwhelming him with suggestions, combing his hair, sticking a clean handkerchief in his pocket, giving a last quick blessing. How many adult hopes embodied in one child!

Everyday we see, in varying degrees, the same phenomenon parents who have not been loved and accepted for themselves simply as: they were, who have not been allowed to be creatures hungry for love and experience, with many opportunities for fulfilment - children who did not wish for continual instruction but for the chance to experience the world by trying things out for themselves. It is these very parents who turn their children into little people who can earn their love only upon certain conditions.

A year ago little Pedro left us to go to a traditional school. His mother wept at the farewell. She and her husband had had many differences over the right way to educate the child, and she had capitulated so as not to endanger the marriage. Pedro had come to us: as a four-year-old, with a marked weakness in the legs and an unpleasantly rasping voice, which was always harsher after a weekend at home. According to his mother, her husband took a lot of

trouble with the child at weekends. He refused to admit that his son's legs were weak. He himself had wanted to play football in his youth but had been forced by his parents to learn music instead; so it came naturally to him to play football with little Pedro, even if none too successfully. At the Kindergarten, where he had free choice, little Pedro never touched a ball. He was early sent to swimming classes by the parents, although he had ear trouble, and was teased by the other children for wearing ear-plugs and a cap; however, he learnt to swim, and at six was the only child who could (stiffly) get across the baths. But when the Pestalozzi children happily splashed around and tried out all sorts of new games in the water, Pedro used to enjoy just sitting on the edge with nobody; forcing him to go in.

At the beginning of the past academic year, after some discussion we accepted our neighbours' ten-year-old daughter into the primary school. The parents were becoming increasingly dissatisfied with the effects of her previous school upon her formerly joyful disposition, and described how she had lost all interest in work or play, with the sole exception of her piano lessons. After a few weeks in the open system, Megan told her parents that she 'never wanted to play the piano again'; It was a black day for all the family; we could see from her parents despair how important these piano lessons had been - for themselves. Although musically gifted, Megan had first to free herself from the feeling that her piano-playing was important to her parents because it enhanced their own self-esteem. It took a year for her to feel sufficiently respected as a person to dare to venture upon playing the piano again.

It has to be an important part of work in a kindergarten, this allowing the children's unsatisfied needs to come to the surface, and where possible to be satisfied. It is never easy to make clear to the parents that there is a difference between authentic and compensatory needs. They object, 'But you cannot expect us to give them everything they want!' And we try to clarify the subtle difference. The little child who shrieks and stamps in the supermarket and wants everything he sees would still not be satisfied if he could have it all - he is really showing that he has not been loved in such a way as to fulfil his real needs.

Many parents, listening to our advice, have made a habit of taking their children onto their laps, caressing them, letting them make decisions. But often this is only a technique; and if it does not come from a genuine feeling, the child finds it unsatisfactory or feels he is being manipulated. Nothing is

good enough for a child but genuineness. Insofar as we can feel our own needs we will be able to feel the child's. because feeling is an inseparable unity. For many reasons it often takes a long time for parents, however strong their wish to establish a good relationship with their children, to arrive at this genuine feeling. If they ask us, we give practical suggestions for example we explain that laughter and tears are nature's keys, which unlock the old blockages and set the trammelled energies free. Crying is often discouraged, especially for boys. We comfort the crying child quickly to hush it as soon as possible. 'Show me. Nothing wrong, all right now.' Or. 'Big boys don't cry. We fail to realize that the present incident is only the occasion for weeping out all the pain that has been stored up in, the child's 'pool of pain.' If we could hold the child in our arms: and let him weep his fill, and reassure him 'Yes, it really does hurt', then the stream could finally run dry. and perhaps all the tensions from weeks and months and years Could he relieved.

We had a powerful experience when our son Rafael was six. We were working in the school when suddenly Mauricio heard a terrible shriek and recognized the voice as Rafael's. Immediately a teacher rushed in with him. He was howling and holding his hands in front of him. The teacher could not explain it - he had only had a little fall onto his hands; cautious exploration did not suggest any breakages, and the hands were only a little bit red, not even grazed. There were two obvious possibilities - to drive to Quito for an X-ray, or to take it that all was well and settle Rafael down. Instead, Mauricio took him on his lap, held him tightly and said, with each new outburst, 'Yes, it hurts dreadfully'. This went on for half an hour, a gigantic outcry. At last Rafael got enough breath to stammer out, 'I burnt myself - I burnt my hands'. And Mauricio realized: when Rafael was four, he had had a nasty accident with boiling water and a glowing immersion element, which gave him second- and third-degree burns on his stomach and right thigh. He was extraordinarily brave - if he had not 'blocked' the pain he would certainly have gone into severe shock. The burns were long healed and Rafael would proudly tell the story of his accident. But now the 'burning' in his hands had suddenly reconnected him with that blocked pain. He was older and stronger and able to re-live the situation. When I came over from school, the crying was almost finished. Mauricio explained, 'Rafael has had a nasty time. He fell over and burnt his hands.' And Rafael added, 'Yes, and it hurt much more than when I burnt my tummy - but my tummy was badly burnt and my hands are all right.'

In the next few weeks Rafael, usually so independent, clung to us. Once when Mauricio had just put a book aside to play with him, he began to cry for no reason. The natural reaction of the adult who had been looking forward to a little time for himself would have been, 'I'm going to play, and you start crying - I haven't even done anything!' But Mauricio noticed that the crying had started when Rafael had touched his stomach. He gently massaged the place, and set off more and more crying, but whenever he stroked anywhere else it stopped. This lasted an hour. Afterwards, for three whole weeks Rafael was a changed child. Rarely had we known him so relaxed and happy, enterprising and creative. Afterwards he often sought out similar opportunities for weeping; only a light touch would set it all off. This lasted with gradually decreasing intensity for several months.

Janov asserts that only parents who have themselves undergone primal therapy can really be feeling parents. In his book 'The Primal Revolution', he finds it worth noting that many of his former patients have so great a respect for their responsibility towards their children that they choose not to have any for fear that they would not be able to look after them adequately. We have often discussed this dilemma, and personally have concluded that the therapy described by Janov, while perhaps certainly appropriate in many cases, still remains an artificially created situation. We prefer the 'therapy of reality' that each one of us can apply in his daily life. Every situation, with our families, our colleagues, our friends, offers us ample opportunity to be honestly aware of ourselves, to recognize our secret motives, our hidden fears and expectations, and to find alternative ways of reacting. The children in our care are poised for every opportunity to strike out on new paths. They are still close to their inner feeling and not surrounded by the defensive walls of logical thought.

A few months ago Andres' parents: (both University lecturers) came to see us, to express their concern that their five-year-old-son, in his second year in Kindergarten, showed so little interest in 'serious work'. We tried to reassure them that their child knew his own needs best. In fact we had noticed that this child, more than any other, almost exclusively played rough games. If anyone tried to catch him, he would tear himself away immediately and defend himself violently. At the very end of the hour-long interview, the parents asked whether, incidentally, the nightmares that had been plaguing Andres for months and sent him crying into their bed every night could have any significance. They were not sure whether to keep him with them or send him back to bed. At the word 'nightmares' we pricked up our ears and asked

questions about Andres' home life and early childhood. It transpired that his mother had had a difficult pregnancy and had to spend months in bed. He had been a forceps delivery, and had an operation at the age of two weeks, with three more to follow before he had turned two. Then, fortunately, his health improved continuously. The mother returned to work, and the family (especially a very dominant grandmother) looked after the baby. It was noticeable that Andres got on very well with all the less demonstrative members of the family, but kept out of the way of the more affectionate ones. The parents were worried because an old operation scar had newly opened up and turned septic - but fortunately) Andres was a brave little chap and never complained and never cried.

At first we could not believe the story about the scar. Andres would leap down from the climbing frame and romp with his friends without a murmur, however rough the play. However, the next day we ascertained that he really did have a septic wound the size of a hand. We tried to show the parents that their child was in danger of becoming an intelligent person with no feelings, and advised them to take every chance to caress him and make it easy for him to cry. A week later the mother returned, horrified. Little Andres was crying all the time. Once he had asked her, 'Mummy, why don't you love me any more?', and in tears she had promised that she really did love him. But his answer had been. 'Whenever you touch me, you hurt me!' His parents' help had enabled Andres to get in touch with his own pain, stored up since birth - and every feeling (even his mother's caresses) awoke that pain. His parents, who had up to then been interested primarily in their own career, began to look for other ways to live, for their child's sake.

While I have been correcting the type-script for this chapter, the new school year has begun. We have twice the number of primary school children, including some from other schools, about whom I could write II whole chapter of interesting observations. But I will add just one last story, which has particularly touched me.

This summer, an American family left the States to begin a 'more meaningful and fulfilled life' in Tumbaco, including the previously unobtainable possibility of an 'open education'. The change has been harder than they had expected, especially for their eldest son. The ten-year-old, who has had all at once to leave his friends, change his school system, and learn a new language, feels completely lost and bitterly depressed. He does not want to do anything, drags himself around, and will not even make friends

with the children of his age who speak English. In short he is a real little bundle of misery, and it breaks one's heart to see it. But what REALLY upset me was to hear that his parents had promised him a reward of money for each day that he attempted to put on a happy face. Poor John, you are learning early that your parents will not accept you as you really feel!

Basically we would all like happy, strong, intelligent children. How can we cope when they are: depressed and weepy, full of defensiveness and rage, will not listen or look or understand, and seem weak and useless?

6: To Understand Is To invent

The books of Janov and Holden have been very meaningful to us in our daily contact with pre-school children. In the work with older ones they have helped us to recognize old unsatisfied needs, and to promote therapeutic activities. The extensive work of Jean Piaget on the other hand, has been of decisive importance in the establishment of the primary school (although it is of course also valuable for the infant teachers, both in their work and in their own lives).

Piaget always emphasized that he was not a teacher, but a psychologist investigating the development of the child's thinking. His work is so full and rich that it may well take generations for its many applications to be fully recognized and made generally accessible. He has only occasionally put forward concrete suggestions upon education, for instance in his two papers 'The Right to Education' and 'The Future of our Education System'. A few thoughts from these may serve to show the conclusions with regard to general educational practice which he himself drew from his extensive research.

Piaget's work was the beginning of the end for the assumption that children already come into the world with the same thought structures as adults have. We can no longer be content with the old idea that education makes children into full members of society by filling the 'empty vessels' with the correct content. A normal five-year-old will not be able to understand what to us are simple and obvious connections, however clearly and lovingly we explain them. For example, if two differently-shaped jugs A and B hold the same quantity of water, and a third, C, different again, C holds the same quantity

as B, it follows logically that A will hold the same amount as C. This train of argument: will be understood by a normal eight-year-old, but up to the age of ten or eleven there may be some doubt, especially if there are new elements (e.g. weight) or if the argument is presented orally without visible materials. Piaget has consistently shown that logical reasoning as adults understand it, only begins to take shape at ten or eleven, and only becomes completely formed at thirteen or fourteen.

This understanding must necessarily exert considerable influence upon our work. In Article Twenty-Six of the Charter of Human Rights we read that every human being has the right to education. However, unless we wish to consign these researches into children's thoughts processes unread on the top shelves of university libraries, this right does not simply mean that the place for all children everywhere is in' school to learn to read, write and add up, with the assistance of teacher, text-book, pencil and paper. If we consciously incorporate Piaget's discoveries into our daily work, new perspectives open up everywhere - not only for the education-hungry Third World, but also for the developed countries with their long scholastic traditions.

Piaget shows that the intellectual and moral structures in the child are totally different from those of the adult, but that in their most important functions the two are very alike. Both are active beings, whose activity is directed by their interests and their inner and outer needs. He uses the well-known illustration of the tadpole and the frog. Both need oxygen, but each uses a different organ to obtain it. Likewise the child's activity is similar to the adult's, but uses a mentality whose structures vary according to his age. Piaget asks seriously whether childhood is really a 'necessary evil' to be put behind us as soon as possible, or whether there is a deeper meaning, which the child can show us through his own spontaneous activity, and which he should be allowed to experience as: fully as possible.

Piaget insists that the right to moral and intellectual education is more than a right to gather knowledge, to listen and to obey: it is rather the right to train certain valuable instruments for intelligent thought and action. This requires definite social surroundings, but not subjection to any fixed system. Piaget speaks of the right to the greatest possible realisation of the powers latent in each individual, through which he will later be able to serve society. These powers, however, can not only be developed through the educational process; they can also be destroyed or left unused. Piaget suspects the traditional school of exercising a similar function to that of the initiation

ceremonies of primitive societies that of enforcing total conformity to the standards of the tribe. For does not the traditional school, with its expectation of subjection to the moral and intellectual authority of the teacher, and the absorption of a measured amount of knowledge necessary for passing an examination, play a similar role to those initiation ceremonies with their similarity of aim to transmit generally accepted truths to the new generation, and thereby to guarantee the stability of a society stamped by common values and standards, and its unaltered continuance'

Piaget holds that education should be directed towards the full development of the human personality; it should produce individuals autonomous both intellectually and morally and able to respect such autonomy in others, applying the law of reciprocation to others as to themselves. This educational aim brings us directly to the central questions which underlie the Active School movement.

The traditional school offers its pupils a well-measured amount of knowledge, and gives them the opportunity to use it in various 'intellectual gymnastics'. Even when forgotten over the years, it gives us the satisfaction that we did once know it. To this we can oppose that It is not so much the amount of knowledge that is important (so much of it I never used and therefore quickly forgotten) but, far more so, it is the-quality of life that should be attracting our attention. We know well that knowledge we have acquired through our own enquiry and effort not only remains with us longer, but that the method of learning which we have discovered in this way can be useful for the rest of our lives. Our natural curiosity is awakened, whereas passive learning dulls or extinguishes it. The pupil's own involvement in his learning strengthens his power of thinking and helps him form his own ideas instead of exercising his memory or following ready-laid paths.

Not even the founders of active schools realize how necessary radical reform of our learning and teaching really is. It is hard to understand the factors which have so long slowed down or hindered a thorough-going application to educational practice of these known researches, into the development of rational operations and the formation of basic ideas.

In his 'The Future of the Educational System', Piaget gives considerable space to the problem of mathematical education. He has no doubt that its true importance lies, long before the use of symbols, in the intelligent

handling of material objects. He shows that people who have long blocked off the understanding of mathematical concepts can carry out the operations regularly in their daily lives if it is to their advantage. Piaget goes so far as to claim that nothing can be understood unless it is experienced through repeated transactions, given fresh impetus by new incentives and contexts, and 'invented' and discovered by the individual's own continuing active experimentation. 'To understand is to invent': thus he formulates his indispensable basic principle of learning through self-activity, if our children are to become able not simply to regurgitate pre-digested ideas but to create their own. The process of converting experimental activity into abstract ideas then happens by itself, following each individual's own rhythm. Intelligent use of these abstractions, these ideas, can only be expected after the onset of puberty, that is after the formation of the appropriate mental apparatus.

This need for free activity and experiment is not confined to; mathematics or logic or such areas as have always required some: intellectual co-operation. Piaget expressly states that it is impossible to: educate people to ethically thinking beings if, in their learning, they have not been allowed to discover truths for themselves.

Likewise it is impossible for anyone to become intellectually independent if his ruling ethic has been to subject him to the authority of adults, and when the only social exchange which enlivens his learning is between teacher and pupil. It would be possible for an 'active school' to arrange things that the pupils gain their knowledge through handling tangible materials, but still to fight shy of allowing this activity overflow into free, spontaneous and uncurbed exchange between pupils themselves.

For Piaget an 'active school' is only worthy of the name of it now only allows, but actually encourages this free living and working together. In his book 'The Moral Judgement of the Child,' he shows in many ways how one-sided respect for authority actually strengthens egotism and makes genuine ethical- behaviour, which recognizes other's point of view, impossible. Only through the free and spontaneous working together and mutual influence of equals is it possible for the individual to 'see the other side' and to grow beyond the egocentric stage and become a 'person'. This is the answer to the frequently advanced argument that a free System 'leads to individualism' and if generally applied would destroy Society. If we trust Piaget and make the experiment, we find that it is precisely the other way

round - a democratic society becomes possible through freedom in education, but is endangered by authoritarian methods,

In his above-mentioned booklet, 'The Right To Education And The Future Of Our Educational System', Piaget gives his impressions of a visit between the wars to a reformatory in Poland. There the governor had dared to give the responsibility for every aspect of the institution's life to the young people themselves - that is to say, the disturbed and criminal youth whom society had put under lock and key. Thus the inmates dealt not with wardens and overseers, but with their peers. As at Summerhill, they made their own rules, anti saw to their observance and when necessary to the punishment of any transgression. Piaget describes: how these youths impressively brought about their own reform, as: none of the experienced authorities in their earlier institutions had ever been able to do. Is such self-government and mutual respect only possible among criminals? Are our good little children to continue obeying authority and competing for good marks or praise from the teacher or other such benefits:,

From Piaget's commentaries on education we can draw a two-fold conclusion: firstly that it is undesirable to compel children to attend school without taking the nature of the--child at least as much into account as that of the material to be taught. (The theoretical study of child psychology is only of limited use here; it can never replace careful observation of children acting spontaneously with materials among their peers.) The second conclusion is that we should so reform our teaching methods that they do not work against the laws of the child's nature. They should make their chief aim to awaken the child's latent abilities, and to avoid the child having to learn various tactics of self-defence in order to retain his integrity in an inappropriate learning situation.

These observations would be too general if we failed to recall the well-known stages of development, perhaps the most important of all Piaget's discoveries. David Elkind's book 'Child Development And Education', makes valuable and helpful connections between these studies and modern educational theory. Piaget himself early avowed his preference for 'vital structuralism' - that is to say, that instead of using one narrowly defined scientific discipline to investigate the objects of his research, he unified the most various and apparently unconnected elements in a kind of interdisciplinary method, and arrived at unexpected insights which have since begun to influence education all over the world. Elkind gives important

guidelines, showing how the formerly unrelated fields of education in practice and psychological research can achieve a dynamic interaction. One of the most important recognitions which we owe to this 'living structuralism' is that of the integrity of the child, who in every stage of development remains a perfect organic unit, whose experiences and perception of the world are always valid and deserving of the greatest respect. This organic unit undergoes continual transformations, which are caused by the interaction of the growing human being and his environment, and through which both undergo continual change. In this process there are always new adjustments; earlier equilibria are re-organized with each new experience and lifted to a new level of understanding.

Each new stage sees the re-enactment of this process through same phases – the first is characterised by adaptation, for example the newborn baby learns to fit his mouth to the breast to obtain his food. The second is assimilation – the child sucks at a variety of objects, transferring his sucking instinct to the world around him; learning new possibilities for the use of his mouth, and coming into contact with new shapes, temperatures, surfaces, dimensions and so on, and learning to differentiate these from the breast. It is through this realization of differences that the child becomes an intelligent being.

In this process there is a continual fresh establishing of equilibrium between the organism and its surroundings. New stimuli and progressive organic growth bring the child repeatedly to the necessity of leaving behind the equilibrium already attained, and achieving adaptation and assimilation on new levels. Through this ceaseless activity he discovers patterns, such as the early discovery that the object he touches with his mouth is the same one as he has seen with his eyes or touched with his hands, heard with his ears or smelt with his nose. The various patterns become connected, and gradually lead to the first knowledge of the world and the first intelligent acts. In this way, towards the end of the 'motor stage', the small person attains the secure knowledge that there is a tangible world, not to be confused with his own self. His growing mobility and strength teach him to orientate himself spatially in this world, and consecutive transactions give the first experience of the passing of time.

The pre-operational stage (about two to seven years) characterized by the growing use of speech and creation of symbols. Not only does the child learn to call things by their names, but he is able, for instance, to take the liberty of calling a piece of wood an aeroplane and using it as such. In this

stage free fantasy play comes into full flower. Not only does the child 'play out' what has troubled him (and thus integrate it into his life) but through this play he also comes to ever new re-organization and levels of mastery of the elements of his world: Fantasy play is thus: important both for his feeling and for his intelligence. At this stage the child is sometimes plagued by nightmares and inexplicable fears; he lives in a fantasy world full of fairies and: witches, in which every object has a Life of its own. At this stage name of a person (or thing) is identical with its owner. (This is one important reason why it is so hard to separate a small child from his or her toys - in a way he feels that he and they are one and the same).

The child's egocentricity is very marked at this stage. It is not yet possible for him to keep the rules in a game, because he is not yet able to transfer an example into general behaviour. He still needs the security of doing certain things with a certain ritual; and through this he will gradually learn to generalize.

The stage of concrete operations or 'operational stage' is clearly recognisable only in the seventh and in many cases the eighth year and lasts until the onset of the stage of 'formal operation', that is until the child is twelve or more. In this connection it is particularly important that this stage coincides with the time at junior school. One characteristic of this stage is that the child begins to comprehend situations and objects in which more than one factor - e.g. simultaneously shape, colour and material - has a role to play. However, he can do this with confidence only when he has the objects to hand, or at least knows them well. He begins to assimilate the ideas of quantity, unity, unchanging volume, weight, number, length, area; and he arrives at these ideas: exclusively by working with tangible materials and situations. If we attempt to rely upon symbols, however attractive and simplified, we force the child into defensive measures - he will use his memory to recall the knowledge he wishes to reproduce.

An especially interesting aspect of this stage is the invention of 'rules'. Spontaneously the child attempts to co-ordinate his countless Individual experiences into a comprehensible whole. He evolves general truths and methods, which he compares continually with those of the world around him, a never-ending process which leads him to ever new equilibria between himself and the world, and which will not end when he finishes school.

It is noteworthy that, especially in a land such as Ecuador, an enormous amount of junior school time is spent upon dictation and learning rules by heart - grammatical rules, number mnemonics, rules of spelling, writing, behaviour. Claparede's Law says that anything one has once learnt by rote is far harder to understand in later life. No wonder that He repeatedly see how far this practice of learning rules blocks off the possibility of intelligently applying them later. The frequent critiques of the education system in Ecuador recognize this, but the real reasons behind it are seldom understood.

At the operational stage, the child learns increasingly to master his environment, to substitute different factors and compare the results, to be aware of the other side of questions and ever more subtle differences. He learns to mix and to separate, to measure and write the answers down, and to adapt his own behaviour to constantly changing situations. However, his ability to draw and then to verbalise logical conclusions from his own experience is still limited. If we try to urge the child to produce such conclusions, we will receive some very strange answers (unless the child repeats what he has learnt by heart). Piaget's books are rich in such sayings from the under-fourteens, which illustrate this inability to condense logically unexceptionable verbalisations from their own activities and experiences.

But how can we ensure that children will ultimately progress from concrete activity to the abstraction without which they cannot fully members of our present society? This is a question that has worried many parents. According to Piaget, the process of 'thinking' and symbolising, unless artificially accelerated, can lag up to three years behind the development of intelligent concrete activity. Usually we adults find it too difficult to wait so long, and we tend to equate intelligence with early symbolising.

We try to explain to the parents that this evolution of the intelligence is not unlike a digestive process. If we wish to nourish our children adequately we can offer them healthy food - but we cannot teach them how to digest it. It is the same with the understanding of reality : we can bring our children into contact with it, but not instruct them how to assimilate it. The best that we can do is to allow them constant and varied activity in a real-life situation. Understanding is a natural function of the growing organism; combining and abstraction are natural activities of the cerebral cortex, which first becomes fully functional in the exercise of these very activities as childhood draws to its end.

In his book 'The Dragon of Eden', Carl Sagan refers to these connections. He describes how the brain reaches its full capability by marrow-forming processes whose strength is conditioned by the intensity of bodily activity within the outer world. These studies show an amazing correspondence to Piaget's recommendation that in childhood the intelligence structures can only be formed by concrete activities, involving all the senses, and with the greatest possible freedom of movement. Here we are: led back to the 'active education' whose basic elements are exhaustively described by David Elkind.

The most important, and most frequently misunderstood, element is 'operative learning'. It comes about through spontaneous and renewed experimental activity with a multiplicity of tangible materials, both structured and unstructured. The child learns to encounter all the difficulties inherent in each type of material and, at his level, to surmount them. This operative activity fosters the marrow-formation of the brain, and the development of the intelligence structures which in due time will lead to abstraction and valid generalization. For it the child needs freedom, many different and new materials, and as little as possible interference from adults.

It is not sufficient to offer the child only one type of material to help him gain an active understanding of what is latent in it. For example, the idea 'unit' needs a very wide experience of many different materials to be arranged, compared, graded, and in some cases destroy and built up again. The child needs to repeat the same transaction with, different materials and in different situations - perhaps with flowers, leaves, patterns, geological forms, model houses, clothes, textiles, surfaces permanent and transient objects. This richness of experience tot be ensured only by great freedom of movement. Initially precision is not too important; a child learning to swim has first to feel at home in the water, then his movements will not be stiff. In the same way, every activity needs an introductory period of free experiment, which leads to fluency and confidence, before being refined to the orthodox techniques.

Figurative learning takes second place to operative learning in the 'active school', even though there, as in daily life, it generally runs parallel. It has nothing to do with what the child discovers for himself hut with what he inherits. imitation, memory training. speech, manners and customs. it only has: meaning when there is already a broad and secure base of operative learning. Without this basis an excess: of figurative learning can lead to

distortion and ultimately forgetfulness, as we know from our (mostly figurative) learning for exams. A valid law in respect of figurative learning is that the learning process and its intensity are more important than the size of the syllabus.

The third type of learning in the active school, connotative learning creates through the contact between signs and symbols and their concrete counterparts, the connection between the first two types, between actions and words, direct experience and its descriptive symbols. Through his daily contact with adults and other children the child picks up words and expressions and learns to repeat them, only gradually understanding which expression belongs where. In this way operative and figurative learning go hand in hand. Continually experimenting and trying things out, the child comes to the point where the two operations begin, in use, to merge. Perpetual correction will make him insecure and inhibit his joy in discovery. Arts and crafts offer a rich field of opportunity for connotative learning, as do the many texts with pictures that are used in our school. But best of all, in my view, is nature's own opportunity, free play, which allows the child to experiment and gradually bring words and actions into harmony. I shall have much more to say about this free play.

The active school aims to make available an environment which favours the growth of these three ways. But anyone: who sets about creating an environment must not be surprised if the: children make their own use of it! For, what is offered, each child will select what corresponds to his own needs; and the adult will often not be: able to predict, from one day to the next, which material will attract interest. We do know, however, how deeply influential these inner needs are, and that a truly balanced relationship with the world is possible only when we allow the child to establish it himself, in accordance with his 'pressure from within'. This state of affairs is more important for the active school than may initially appear, and will have a powerful influence upon our attitude as: teachers. The knowledge about this need for true balance, which becomes very obvious in the free system, can help us to be less disappointed when we have sat up all night to make a beautiful arrangement of new materials and the children ignore it and dig out something long forgotten from the back of the cupboard.

It is impossible to over-estimate the importance of this 'sluice mechanism' A child at the stage of sorting out and evaluating: experiences, who is presented with a variety of stimuli and allowed to choose those which

correspond to his inner structures, will quite naturally protect himself from new or unsuitable stimuli and, at any rate temporarily, simply shut them out of his consciousness. Gentle, or strong, pressure from outside may open these gates. The child can be gently motivated, or forced by reward or punishment, to give way to external pressure and turn his attention to what is not really in harmony with his inner interest. But his understanding will be darkened and the subject-matter distorted, because it is being adapted to the growing organism's inner needs and cannot be treated objectively. On the level of feeling, tensions are set up, from which children will seek out various ways to free themselves - a phenomenon that troubles many teachers but is seldom fully understood.

Another important mechanism in the child's learning process is the need to 'store up' experience. Anything that the child cannot assimilate, because it does not fit into the current intellectual and emotional structures, is first 'put aside'; it is left to the unconscious mind to give it a preliminary processing - which can take days, months or even years. If parents or teachers press the child to tell about an experience too soon if they insist on hearing what went on in school, or set a descriptive essay immediately after a school-outing - there will be all sorts of unexpected problems, as the following story shows.

The school bus had, exceptionally, to wait for a handicapped child, and had been delayed for a quarter of an hour on its return to Quito. One of the mothers was so worried that she overwhelmed her daughter with questions without waiting for the teacher to explain. The five-year-old was, naturally, unable to give a logical explanation, so to quieten her mother somehow, she painted a lurid picture - the bus had run into a blue car, the car was a write-off, the ambulance had taken the injured to the hospital, the police had nearly put the driver in prison

Not all children will vouchsafe such fantastic replies. For instance, many will habitually write boring essays so as not to give the adults too much insight into their personal lives. Jung, in 'Memories, Dreams, Reflections', describes how for years he produced mediocre work at school and successfully evaded everyone's notice so as to live his own life in peace. However in one of the top classes an essay subject interested him so much that he put himself fully into the work. The embarrassing result was that the teacher publicly accused him of plagiarism from some unknown writer!

Closely connected with these mechanisms of childhood learning is the need, often frustrating to adults, for play. I can only briefly delineate the tremendous importance which Piaget attaches to it.

Although they are not really separable, we can speak, for simplicity, of two kinds of play. The first is symbolic play, through which the child attempts to free himself from the inner pressures caused by overwhelming experience. Amidst all sorts of other elements, and often far removed in space and time, the child inserts elements of his: own life. In this play whatever in real life compels the child to take up a false position, to submit to authority, to rebel or to co-operate, and sets up conflicts within him, is resolved. The child controls the situation as it chinks best and comes to solutions that would be impossible in daily life. He is the doctor forcibly injecting a resisting doll, or the mother pitilessly showing an unwanted visitor the door. This play, both in kindergarten and, with a higher symbolic content, in primary school, should not only be allowed, but encouraged by the provision of suitable props', and carefully watched and evaluated by the adults. It is especially important in play therapy, which will be described in a later

The second type of play is: less involved with the feelings. It is called 'functional' or 'practical' play, and there are three stages. First the child finds himself in a new situation and, perhaps reluctantly, adapts to it. For instance, perhaps he has to jump over a little stream. He hesitates, looks to see if there is any other way, and finally forces himself and lumps over.

Then comes the second stage. The child jumps brick and forth over the stream, practising. Sometimes he jumps too far and falls over, sometimes not far enough and gets wet, but ultimately he masters this new skill (probably forgetting where he was off to in the first place).

Now he feels that he is a master stream-jumper, and for the sheer pleasure of it he jumps over every stream he comes to; and this is the third stage which leads on to the seeking out of new situations and more complicated transactions.

According to Piaget, children's play is the most authentic expression and most important 'teaching aid'. Games with rules give rich experience in living along with others. Schools should really value play, and not confine it to break-times in the empty playground. But even if we consciously build play into our school life, we must be quite clear that one of its most

important ingredients is spontaneity, and that it should be organized by adults only in exceptional circumstances and then with great care, so as not to compromise: its self-regulating character.

I should like to add a few hints upon another subject exhaustively treated by Piaget, the use of language. Very early on children show interest in speaking and listening, and they reach an astonishing degree of mastery by the beginning of the operative phase. Unless we look more exactly, we can easily conclude that children use language in the same way as we do, and rely on this 'common tongue' in our dealings with them. As devoted parents, we often explain lengthily about all sorts of things. The three-year-old who is fascinated by the sound of our voice, and likes us to be with him, develops his well-known technique of 'why?' and elicits more explanations. By the end of the day we are utterly exhausted and can hardly wait to get our little interlocutor off to bed. As he gets older, we become impatient. 'I've already explained that one hundred times. Why ever don't you understand?' A whole educational tradition has been built upon the misunderstanding that the six to fourteen-year-old speaks the same language as we do. Our teaching tries to tone this language more finely; but Piaget's studies show that this 'common language' is an illusion. Even at six, only a small part of the child's speech serves as communication: at this age, up to 50% can be 'egocentric', directed towards his own feelings. Only gradually, and above all through increasing contact with his peers, does his speech take on a more 'social' nature. (We have already pointed out that it is not until the onset of puberty that the thought structures are formed which make our speech a viable means of communication).

No wonder, then, that we come into conflict with our children. We are relying too much upon a supposedly common language and too little upon other important means of communication. It confuses the child when, without our being aware of it, our facial expression, body language, tone of voice or other non-verbal indicators conflict with what we are actually saying. These non-verbal indicators are much clearer to the child than our verbal logic, and usually far more decisive,

Anyone working in an open classroom will find great enrichment in Piaget's studies of the child's intellectual growth, which happens in the same way all over the world. These studies are an excellent point of departure for our daily observations. I should like to conclude this chapter with a short note on

the problem of egocentricity, which runs like a red ribbon through all Piaget's work.

Every stage of development has its own type of egocentricity. It is, naturally, particularly obvious in early childhood, when the new organism is totally dependent upon others for the fulfilment of its every need, and it is impossible for the child to take anyone else's interests into account. This egocentricity is his basic protection and essential for his survival. However, even as the child begins to be able to do things himself, he is still convinced that everyone else knows about all his ideas, feelings and experiences, and are one with him, as he feels one: with all around him. During this stage the child naturally sees no need to communicate his thoughts, feelings, experiences to us in a comprehensible way.

At school, egocentricity takes on a new form so as to safeguard his integrity. The child tends to adapt all incoming information to his own world-picture. Only through continual encounters with real situations will he come to revise the picture and harmonize it with objective reality.

Adolescent egocentricity can be particularly trying. Adolescents are sure that everyone else knows how they are feeling, and feel the same. At every stage, egocentricity acts as a protection. The baby who took account of his parents' tiredness could never come to his own rhythm. The school child who did not stand by his own world-picture could never acquire a critical attitude. The adolescent who doubted the feeling and motives of those around him would soon lose the motivation to accept responsibilities himself. In all these stages, we as adults help to strengthen egocentricity, and make a lasting problem when we hinder the fulfilment of the true needs of the individual at his current stage of growth. The child sets up a whole array of mechanism to fulfil these needs against our wishes, even if he often has to be content with substitute solutions. A child who feels endangered in his integrity by falsely understood authority will cling on to his egocentricity for longer than one who feels understood, and can open himself in a relaxed manner, without fear or prejudice, to the world and the people who live in it.

7: An Alternative Primary School

Our study groups of parents and teachers had gathered together a considerable amount of material about educational problems, child psychology, education, and the laws relating to it, in Ecuador. We could no longer blind ourselves to the need for alternative possibilities. Should we begin to try to reach public opinion by writing articles which set out the state of affairs? But then, if parents began to doubt the value of the traditional schools, what else had we to offer? What alternatives had succeeded in other countries? Was there one that might be suitable for ours? Could we harmonize an alternative educational way with the requirements of the Ministry of Culture?

Our researches turned up many alternative experiences, especially in Europe and America. For instance, Paul Goodman's 'Growing up Absurd' strongly criticises the structure of modern American education, opining that many of its evils spring precisely from the fact that it IS compulsory (a statute made originally for the protection of the nation's children) and offering a variety of possible suggestions and solutions. However, circumstances in Ecuador are so different that we could only use Goodman's most basic insights. One of these was a constant support to us: in times of doubt - a child taught at the right time and in the right way can easily cover the entire syllabus of six years of primary school in four to seven months. It follows that there is no reason to forgo the opportunity of experiment with and evaluating alternative methods merely for the sake of the official syllabus.

The members of the John Holt Association in America go so far in their efforts to solve the modern educational dilemma that they offer to all parents who wish to withdraw their children from conventional education, and attempt an alternative, active support in resolving the many resultant problems. It has become quite a sizeable movement in America, relying for its support upon a growing number of parents, who have not only acknowledged the disadvantages of conventional education, but also have resolved to proclaim their principles in the face of all opposition, and to take full responsibility for the education of their children at home, even at the cost of considerable personal sacrifice. How far-reaching this sacrifice can be is described in the story of an exceptional family in England, in Michael Deakin's 'The Children On The Hill'. With the greatest admiration we read how the parents consciously negated all their own feelings during the years in which their four children were growing up, and also their total accession to the authentic needs of their children so enhanced their development that outstanding gifts manifested themselves and came to full flower.

We are naturally far from prescribing so perfect and extreme a devotion, to parents here in Ecuador. Perhaps there is not yet enough doubt about the official school system, and certainly few parents have sufficient trust in their own abilities for it to be feasible for us to recommend drastic measures which might entail educating the children at home. Thus our alternative had to be recognisable as a school. Various possibilities from abroad attracted our attention the 'open-plan' classrooms of America and Northern Europe, the 'integrated day' in England; Denmark's 'travelling schools', the Montessori schools and Steiner schools in many countries; Celestin Freinet's 'Ecole Moderne' in France and the, 'Schools for Thinking' based on Piaget's research, which aim to direct the child's early thought processes scientifically along beneficial lines.

Firs~ to be eliminated as models were the Steiner schools;, since we did not wish to be bound in advance by the anthroposophic outlook. The 'Schools for Thinking' as: described by Furth & Wachs also failed to convince us. How could a timetable, dividing pre-planned activities into time spans of five, ten, twenty and twenty-five minutes develop the children's ability to make decisions, take into account individual needs and interests, and lead to a genuine individual approach to life, even if the general thought and logical structures of this stage were at all points considered?

Most of the parents and teachers: who took an interest at this stage in our project for an alternative school had themselves: gone through some sort of personal process. Each one was trying in his own way to arrive at a feeling of 'wholeness', to learn to be totally in the present, to release old tensions and blockages, and face life with new hope and receptivity. For these people the question was, 'How can we create a school which will not educate out of existence the child's natural employment of life, curiosity, security, individuality, appreciation of his own worth and that of others? A school that will not force the child to Jim up the free flow of his feelings, and can leave his: inner lift: undisturbed, so that he will not later have to retrace his steps to 'find himself again"! Could there be a school that left the impetus for learning with the child, instead of systematically transferring it to adults'.'

We soon came upon the writings of John Dewey, which early in the century had already become sign-posts for progressive educational methods.

What is progressive education:' As compared to the more traditional establishments, progressive schools give more weight to respect for the individual and an increased freedom. They are agreed that the education of the boys and girls who attend them must be based upon their own nature and experience of life instead of upon syllabi and norms imposed from without. They are all recognisable by a certain informality of atmosphere, for experience has taught us that excessive formality is detrimental to truly intelligent activity, sincere expression of feeling and growth. Another common factor is the stress upon activity as opposed to passivity. And I also suppose that in all these schools: respect is given to the human factors, normal human relationships, interaction of children and adults - all these relationships that mirror everyday experience in the larger world outside School. All progressive schools agree that these normal contacts between children and adults are of the highest educational value, and that the artificial relationships which, are a prime element in the isolation of school from real life, have negative consequences. Thus much over the common spirit and common aim that we assume in progressive schools.

As long as we recognize at least the elements which are characteristic of a certain educational philosophy - respect for individual abilities, interests and experiences; sufficient freedom and informality to make it possible for the children to come to know the children as they really are; respect for self-initiated and self-directed learning; respect for activity which is both spur to and centre of learning; and perhaps above all faith in human contacts, and co-operation in a normal human atmosphere

Even were it true that everything can be measured, if only we knew how, what does not exist cannot be measured. And it is not contradiction to claim that the teacher is deeply interested in what does not exist; for a progressive school is above all interested in growth, that moving and changing process, that transformation of abilities and experiences. Whatever is already present in the way of natural talent and earlier achievement is less important than what is to come; the potential is more important than the actual, and our knowledge of what has already been draws its meaning from its relationship to the possibilities that can grow from it.

Like the Montessori schools, open schools in Europe and America retain the basic elements of an education that is fair to the children and respects their personalities. However, many of them rely on expensive materials, and work in carpeted classrooms, giving the impression that a good environment

requires huge capital investment. Even the English schools, with their 'integrated day', though less luxurious than their American counter-parts, can still count upon public funding, access to libraries, and other such means of support. On the other hand, France's 'Ecoles Modernes' demonstrate clearly that an education based upon the children's own initiative and activity is equally possible with simple means and in poor surroundings. However, Freinet tried to bring the children's enterprise into line with the government syllabus and worked out timetables with them, which then took precedence over their spontaneous interests. Since then the impressive Ecole Moderne movement has largely been absorbed into the general educational system, and, as far as we could discover from our brief visits, there appear to be few efforts to apply and develop Freinet's original concepts.

We stood, then, before the two-fold problem. Firstly, how could we with our scanty means, create an ideal learning environment with sufficient equipment for our children? We did not wish simply to imitate models from other countries, but to work as far as possible with local materials. Initially we would not receive any government support and would have to finance the school from parental contributions; so it would be important to keep our costs within the reach of the average wage-earner and also to find a way to make our open system accessible to the poorest sections of the population.

The second problem was our relationship to the Ministry of Education. There was never any question of financial support, as the educational budget certainly does not extend to aiding alternative schools. It was much more whether we could persuade the Ministry to allow an alternative means of education along side the uniformity of the school system. When a delegation went to consult the Ministry, their answer was clear. 'In Ecuador we do not give permission for any school that does not unconditionally accept the plans and programmes of the Ministry of Education. Here we do things properly. We do not allow experiments.'

However, there is an institute within the Ministry which is responsible for all levels of teacher training. We heard about a small group of progressives who were covertly following a new line and might be less inimical to our ideas. An unofficial approach to this group led to the advice not to seek official recognition at this stage, but simply to get on with the work and lay up useful experience. Things might change at the Ministry; there might be people who would arrange retrogressive recognition without compromising the progressive principles. This is a South American way of dealing with

legal affairs! In fact it took three: years from this 'unofficial' decision until things did change and in 1982 the Minister of Culture signed our official licence to practise active education in the 'Centro Experimental Pestalozzi'.

But who would dare register his child in a school that had no official recognition and existed as yet only in the minds of a small group of people? At the usual time of year for registrations then there were no buildings, no chairs, tables or other furniture. Several parents who had been interested in the idea took fright and quickly registered their children in schools which, even if run on traditional lines, at least already existed. We were left with seven couples: who were determined, come what might, to send their children to an active school. We made an agreement with them the school committed itself to creating an environment in harmony with the principles of active education, and to attempt to speed up the process of gaining official recognition. The parents promised to take part in monthly study groups to learn the 'active principles', to apply them as far as possible at home, and at least once a term to spend a morning at school observing the children's activities, and then discussing them in the study group.

Since our first classroom only needed to take a small number, we planned a small extension to the hexagonal Kindergarten house. everything was very simple - a cement floor, and scaffolding pillars supporting a light concrete wall; wooden walls, big windows with eucalyptus wood frames; a small store of seasoned wood, the skill of our carpenter, and credit at the Tumbaco hardware shop - for the classroom to be almost ready on the first day of term. The only thing lacking was the window-panes, which were to be bought with the first fees. There were temporary shelves but of board and bricks, and on the first day our seven pupils proudly entered their kingdom. The infants were not allowed in it, so it seemed like a forbidden paradise. It was a paradise with plenty of fresh air! The tables and chairs were brightly painted and the temporary shelves full of new materials. A cosy little library was equipped with straw mats, cushions, and books in three languages. There was a corner for playing families, a puppet theatre, a big bowl of water, and many different objects for experiment, a sand-table with toys, scales, measuring instruments, and above all, free access to the grounds, and a piece of garden which every child could tend, and the freedom to return at will to the kindergarten for hours or days at a time if unsatisfied needs from earlier years should require it.

This first classroom was already too small by the end of the first year, as more and more 'school-sick' children transferred to us. At the beginning of the following year, our numbers had trebled, and we had to postpone entry until we had built a bigger room. In the first three months the old classroom was filled to bursting. We set out tables and chairs in the garden, many of our activities were transferred outside and several children got sunburnt noses while they worked at writing and arithmetic. The children were untroubled - they climbed over the chairs with armfuls of material, excusing themselves if they trod on anyone in the process. The new school house arose before our eyes. The children helped lay the foundations, measured heights, depths, lengths, paced out the sides, circumferences, diameters of the rooms, estimated and measured, helped with the sawing, painting, glazing, and finally with the decorating and moving in. During those three months, the school house became part of their lives.

It is another hexagonal building, with big windows against which the donkeys and llamas come to press their noses. On four sides the overhanging eaves make a little porch, used in various ways. On one side there is a spacious terrarium which holds a constantly changing collection of plants, small creatures, messy twigs and similar treasures from the children's explorations of mountain and ravine, stream, river and forest. Next to it stands a rough table which can become a model town, a zoo, or an exhibition centre.

The other side shelters a raised sand table and water play centre, with hooks for rubber aprons and garden tools. Along the walls are the children's lockers for their personal possessions. Another roofed area is the pottery table, and another holds an enormous chest in which can be found all the things that most families throw away - old irons, spare parts from cars, burnt-out motors, remains of clocks, radios, fridges, bicycles, fireworks, pipes, hoses - a huge collection of broken objects, which the children's fantasy and enthusiasm for action transform into space ships, submarines, robots, or inventions not yet known to man.

The original classroom, a few steps away, is now a storeroom for paper, cardboard, crayons, pencils, glue, and an inexhaustible supply of cartons, plastic containers, corks, pieces of cloth, wool, bottle tops, toilet-roll centres, and all sorts of 'rubbish' which we have begged from various factories. The nearby carpenter's gives us pieces of wood in all shapes and sizes, shavings and sawdust, nails, glue and emery paper.

As well as: the classroom, a large picnic table, a pleasant play house and a huge heap of sand, serve various purposes which are chosen % and altered daily by the children. The surrounding area is a little hilly, and the flatter parts have been changed by the children into playing-fields for ball games, long and high jumps, races and similar activities, which they cultivate with varying degrees of reliability. A little weather station completes the 'Outside facilities'

In the house itself on one side there are two toilets, whose doors bear the legend, painted by the children, 'Apestalozzi' (Apestar is Spanish for 'to stink'). In the middle is a loose arrangement of shelves, chairs and tables. Around the other sides are the 'interest centres' with all their materials: - a fully equipped kitchen; a 'games centre' full of party games, clever games, games requiring dexterity, Lego, Meccano, bricks of all shapes and sizes; a craft centre with tools and sewing materials, including a pre-historic sewing machine and a loom; a 'measuring and weighing centre' with rulers: and measuring sticks, scales and weights, and every kind of clock; an experimental centre with a microscope, magnifying glasses and magnets; a small laboratory and ideas for simple experiments; a puppet theatre and a chest full of puppets, old clothes, hats and all sorts of props for acting. 'Then there is a large cupboard full of Montessori material for arithmetic and geometry; a library where the children's can settle down comfortably to read or listen to stories or music; a cupboard of OKFI; instruments; another for the Freinet card index with informative material and work cards for nature study, arithmetic, writing practice, geography; an especially extensive 'language centre' with material in Spanish, English and German; a bookshelf with maps, a globe and material for nature study; and finally a Freinet printing press with stands for the printed sheets and the aprons, wash-basins, and 'at last' a blackboard.

Here then is the 'Operational base' for a growing number of children, who live here in their own world, whose rules are partly individual because they have to correspond to the needs of growing children and partly the general rules of the society of which these children will become part. As: yet all the age groups from six to eleven are together, but when the primary school has added on all the classes, the ten to thirteen years olds will have their own room, built around their particular interests.

It seems a good omen that our alternative school, in which we place great hope for the future, functions in buildings designed by an amateur, built by a simple Ecuadorian carpenter, and equipped with home made furniture and materials. For visitors who love the solid and permanent, this improvisation may give cause for anxiety. In our moments of doubt, C.N. Parkinson's little book 'Parkinson's Law' has restored our laughter and peace of mind. He argues amusingly that an enterprise or institution is condemned to gradual decay from the moment that it moves into its 'permanent quarters', and that undertakings that are alive and growing are usually to be found in improvised or provisory accommodation. In that case there is no need for us to hurry up and build a dignified school house!

8: A Monday In The 'Primary'

It is a cold Monday morning. The little group of junior children, who arrive half-an-hour earlier than the others with the first bus from the East side of the Tumbaco valley, come into the class room with an ostentatious shivering and chattering of teeth. One can see that they have been too late into bed over the weekend; and maybe they have not had quite enough attention amid the comings and goings of family life. They find me at the table by the printing press, preparing the weekly 'check sheets' on which the children record what they have done each day. Making the excuse that they want to get warm, the children sit themselves as close to me as possible. Each gets a little hug, and one climbs onto my lap, announcing his intention to stay there all morning.

'You look as though you had come from the North Pole!' They agree and say it is too cold for them to do anything but keep warm next to me; so we sit a little. They watch me entering the dates on the check sheets; one asks to help, another wants to put the names in. Before long we are all working together, and the children have warmed up enough to start telling me about the weekend.

'My grandmother came to visit, and my mother was really strange all day.' Another tells of a family outing to a hacienda, another has been to the football. In a few minutes they are all alert and lively; they move off and begin making plans for the morning. Two of them ask to make a welcoming drink for the others who will soon be arriving from Tumbaco and Quito.

They put a large pan on to boil, and look in the garden for herbs to make a tea; then they put three tables together, add a tablecloth and, ceremoniously, cups, and spoons, sugar and serviettes. 'Do you think everyone will be there? Natalia had earache on Friday. I hope she isn't away today.' They count out a cup for each child. 'Shall we ask Santiago to the tea? Last week he tried to trip me in the football game - I don't want to give him any. Oh well, we won't be like that; he'll probably be cold as well.

It occurs to Carmen that she could fill in today's weather chart. She and her sister Alba go out to fetch the rain-gauge, and return with loud cries: 'Now we know why the weather's so awful - there were seventeen millimetres of rain!' They let everyone have a look and, after asking what the date is, enter the rainfall on the wall chart by the door. Then they measure humidity:- no wonder when it rained so much!'. And temperature: '15-degrees we'll all freeze to death!' Carmen decides that today she will work on her rainfall curves, which she is plotting for the whole year. But for now all attention goes to something important - the other three buses are coming! The children run to the gate and greet their friends, pull them by the hand into the schoolhouse and proudly invite them to a drink of tea.

Our other teacher, Vinicio, has come on the Quito bus. During the journey he has had time to 'warm up' with the children, to feel their moods, to take them on his knee, tickle them, laugh with them. So we do not need any further formalities before the day can begin. Vinicio gives me warm handshake, one of the few direct contacts we will have during the morning. Both of us will devote ourselves to the children in whatever way the situation requires. We both have ideas for activities that might suit this or that child, this or that group, but we are agreed that the children's own initiatives take precedence, and both have confidence that the other will be totally immersed in the work, today as on every other day. There is no hierarchy here, although Vinicio is twenty years younger than I am, and a psychology student. Once a week we spend the afternoon together exchanging experiences, problems, new ideas. But here we are all eyes and ears for the children and their needs.

Meanwhile everyone has been served with a cup of tea. We sit and stand around as if it were a cocktail party. Little groups take shape - one is discussing the play and results of yesterday's football. (Two of the boys are 'football crazy' and get teased a little as a result.) Then the children wash the cups and put them, moderately tidily, back in the cupboard. The little drink

and chat together has helped us all to feel at home in the classroom again, and now, singly or in groups, the children get organized for the morning's activities.

Victor and Santiago, whose fathers take them to the football every Sunday, try to persuade some others to join them in a game; when nobody else is interested they start one on their own. A little group, whose weekend has obviously been dominated by the television, agree to play together and reconstruct a whole TV series from bricks, spaceships and people made out of Meccano and Lego. Their intense involvement shows clearly how important this self-expression is and that for a while no adult should in any way interfere.

Three of the older girls put their heads together over tape-recorder in the library, discussing excitedly. I go in with eight-year-old Denise to help her find her book, and the three signal to us, 'Careful, recording in progress, do not disturb!' We stay as still as we can, hear that it is a family scene, with each girl taking various roles in turn and altering her voice to match. Denise sits down on a cushion next to them and begins to read. Lit draws near, and Denise points to the others. 'Quiet! Recording.' Lit carefully selects a book and settles down at a table. She takes her writing things out, and begins copying, in her clear legible handwriting, from the book in front of her. She spent a year in, a traditional school, and often looks for security in this occupation which does not demand too much initiative. As she works I slip an arm round her and ask what she is writing. She visibly appreciates the attention and takes the opportunity to tell me that her mother sprained a wrist yesterday. Then she complains that she has no-ideas, and what arithmetic can she do? This is a repeat performance of every day. Of the few months she has been here. She has never yet used the arithmetical materials by herself, but asks every day to be shown how - even if she appeared to have understood it only the previous day. If I did not know that Lit had spent her first few years locked in a small flat all day while her mother went to work, and then had to learn arithmetic in a completely abstract way without any 'operational' basis, and been beaten by the teacher if she made mistakes - if I did not know all this I might easily lose patience with her. As it is, I promise, as I do every day, to help her with her arithmetic. She has only to call me when she is ready. She bends over her writing and I say farewell with a little caress on the shoulder.

My glance falls on a group of six or seven who are unpacking, with very professional commentary, a basket of junk modelling materials which I had left on the tables. Catching my eye, Carolina pulls me by the hand. 'Look, we want to build a town. Which glue can we use? Do you think we can soak the dried paint from last week or shall we mix new?' I help them bring over a couple more tables so that there will be enough room, explain to Pablo where in the storeroom he can find coloured paper to stick on the houses and various other things, show Cristina how to wash a paint-hardened brush, and soon depart with my well-known refrain 'If you need me, just call'. Here is another group all set up which at this stage of its activities can, and should, follow through its own ideas.

Am I needed at the printing press? Alejandro and Natalia have worked out an advertisement which they now wish to print. (I wonder - did their fathers spend Sunday hidden behind the paper)! ask whether they would like to read it out; they look questioningly at each other - should they or should they not initiate me? Finally they generously suggest that I help them correct the draft, so that there will not be too many mistakes. As they read it out they double up with laughter. A couple of new ideas crop up and I help them check the more difficult words in the dictionary. This is the end product:

'Who wants to buy my house'

Going cheap.

Mud hut with crooked walls.

Windows with broken glass.

Roof no longer watertight,

Floor with holes in,

Wormy furniture,

Sofa with fleas,

Garden with plenty of weeds.

Ghosts available upon request.

Price: One million sucres.

They write out the advertisement on squared paper to make it easier for typesetting, then look round the room to find someone who is not busy. 'Will anyone help us with the printing?' Peter, who seems to have lost interest in the new town, offers. Until break the three will be busy setting and printing. When the first proof is ready they will call me again to help check it.

Another glance around the room to see whether anyone needs me. Vinicio is crouching on the straw mats with a group of boys, all totally absorbed in a sort of guessing game - they estimate lengths, distances, depths, heights, diameters, anything they see. After each child has written down his answer they take the ruler and measure, and whoever guessed nearest to the actual size gets a prize of a eucalyptus seed. Sounds coming from the kitchen make my ears prick up. Megan and Tui, who speak English together, are in the middle of a quarrel in Spanish with Edmundo and Patricio. I try to make out from a distance what the trouble is. 'We were cooking first. Why are you bothering us?' shouted the girls. 'But we want to try out a new recipe. Don't be selfish, let us have a try too. "Yes, and clear up after you, we know. "What do you know?" 'Boys only like cooking, leaving the washing-up.'

Feelings are running high. I decide to go a bit nearer, and immediately both sides try to enlist me. I restate their problems without attempting to offer a solution, and this moral support - as it usually does suffices. They agree that each group will use one side of the kitchen and promise each other to clear up their own side afterwards. I will not be needed any further - they will keep each other to their promises and will instigate a world competition in leaving kitchens tidy. I only remember about them twice more - once when Edmundo, who cannot yet read fluently, has not quite understood the recipe and asks for some help, and the other time when the girls bring a sample of the finished dish for my approval just as I am in the middle of showing Paulina how to use a new multiplication material.

Our two youngest, Gabriela and Mariana, cannot yet decide what to do. They go from group to group, watching here and there, and not doing anything themselves. I try to deduce from their facial expressions and general 'body-language' whether they are quite happy with this semi-passive occupation, which has already gone on for half an hour, or whether they would prefer some suggestions. Non-committal as possible, I ask Gabriela,

'Shall I show you something' 'I know her story, and that at barely seven she has an 'authority' problem. 'No, I only want to watch' comes the predictable answer. I lightly stroke her hair and say, 'I see. You don't want to do anything just now, you'd rather watch the others.' A grateful glance. A few minutes later, as I am putting together Montessori letters to make words with Mariana, Gabriela asks to join in. They sort out the letters they already know, learn a new one, make some words, then use the words they know to make a picture-book, illustrated with colourful drawings on each page, with the new words written as well as they can underneath.

Now cries for help are coming from all corners. Carmen, plotting the weather curves from our daily records, cannot remember how she used the Montessori Division material last time to calculate the monthly average. In a few minutes I ascertain that she is using the material correctly and can continue on her own.

Liz needs a little more attention, so that she can feel secure with the material and handle adding and subtracting in four figures. But she is only really confident if she can call me back at every step.

Alba and Tania are working with logic material, and arguing how to apportion standing, walking and running men, women, boys and girls in various colours. Here too all that is needed from me is a few minutes considering and formulating the problem.

After much erasing and re-recording, the three girls with the tape-recorder have finished their play. Can they produce it with the puppet theatre and do a performance for the little ones in the kindergarten? We discuss it; such a big undertaking will have to be very carefully prepared, and they decide to try and make a written copy and invite the others to see who can make the best puppets to represent the

The town planning also seems to have run out of steam. I suggest that we all carry the finished houses and cars to the big exhibition table, and the children then realize that the town could be much more lifelike with the addition of sand, pebbles and small plants. Two of them fetch what is needed in the wheelbarrow. One of the older children has the idea of using the map of Quito as a guide lot- the larger streets and making their town as like the real Quito as possible. The main streets are laid out and lined with houses. They need traffic lights, and traffic signs and street names, all fetched

with much discussion, ordering and running about. One child insists that the table should be turned round so that the points of the compass are in line. A compass is brought in, and it takes a while until everyone's opinions have been asked and brought into agreement. The crowning glory is a cone made out of cotton wool and sand on the South side, which is easily recognisable as Cotopaxi, the snow-covered volcano that can be seen from Quito. Amid great excitement, we fill the crater with matches. Then everyone is called to see, even some wondering Kindergarten children, and with cries of alarm and delight, one match is lit and the volcano explodes.

Those who were fully absorbed in what they were doing before all this go back to it. Others stop, clear away, and look at the clock - good heavens, it is long past break time and we had all forgotten about it!

The hungriest among us run into the 'old house' and fetch the biscuits and juice from the kitchen. All make themselves comfortable, on the grass, at the picnic-table, in the classroom kitchen; unpack what they have brought from home, and exchange treasures. Others who have already eaten start something new - having a look at the plants; having a game of draughts, or go and set a little brother in the Kindergarten. Vinicio gives his football fans a few new tips. They admire him greatly, because he plays in the University team. I slip off to fetch a cup of coffee and a piece of bread, and sit down on the grass. Immediately someone lands in my lap and wants a bite or a taste of my coffee. Emerson brings his book and wants to read to me, someone else calls me urgently - he has at least manoeuvred a grasshopper leg under the microscope. I must come and have a look. I promise that I will as soon as I have finished, then join the queue of inquisitive children at the microscope, and afterwards we all look out some illustrated books about insects. A few children decide to draw them and add a legend from the encyclopaedia - and thus, without any forward planning, we have a new set of interests.

The children's enthusiasm pulls me in all directions. During these two hours I have been together several times with each individual or group, have touched, listened to, observed, each one; answered questions, offered advice or encouragement, sketched new possibilities, helped those who could not manage by themselves, sought out new material or helped copy up results. Now it is time for me to call to mind anyone who has not yet 'got going' on a piece of serious work. 'Who wants to try a new writing game? Carolina, have you written anything today? Would you like to find something or will you join in here?'

'What is this interesting set-up?'

'We want to use the stopwatch to time who can find the most words to do with water in five minutes.'

'Can we find words for illnesses too? My grandmother went to hospital yesterday.'

'I promise that everyone can suggest a subject. Many children find it hard to express themselves spontaneously in writing, and are grateful for suggestions - maybe a subject (or, better, two) to choose from, for a composition, a story to re-tell, the end or beginning of a story to which they supply the rest, description of a picture or of a group of objects which they have themselves put together, a dictation, or a transposition into past or future. Everything normally to be found in language teaching happens here too - but as an offered opportunity, not a compulsory task. The basis of joy in the new and interesting must not be sacrificed. Quite often, an undecided child has only to hear a suggestion and he comes back with his own - 'No, not that; now I know what I want to write I'll write my friend a letter, and tell him about our outing'.

We have all quite forgotten that it was a cold morning and nobody wanted to do anything. Even the children's voices sound different after these two hours of lively activity - less shrill and tense, with a full peaceful quality. Many of them are silently absorbed in their work. The change in the atmosphere can also be seen in the way they move, threading through tables and shelves with trays full of material, getting out of each other's way, organizing themselves at a table or on a mat, making room for each other. A new harmony is perceptible in their movement and activity, a pleasure in mastering their surroundings, and a lightness of body. The children are absolutely present. The faces are relaxed and aware. Their activities follow their own personal rhythms. After a time of concentrated work sitting still, they seek out something active - the bars, the climbing net, with a ball or a punch bag, a hammer and saw and piece of wood - in the garden, with water or sand. There are plenty of opportunities to work out stored-up energies or emotions. Each child chooses his own measure. The only way to know for certain that a child has had enough is to observe that he has himself chosen to do something else.

The children sense that the morning is drawing to an end. The little ones, who have a recorder lesson for the last half-hour on Mondays, ask; how long it is until then. It is a special day for them, which stands out among the rest. They chose to enrol themselves at the beginning of the school year, and each has himself written out a 'contract' 'I promise to take part in all the recorder lessons and to practise fifteen minutes every day'. They take the ~contract' extremely seriously, and keep reminding me about the recorder long before it is time. The last half-hour is the most intensive. Everyone wants to finish what still needs doing. At the beginning it seemed like a long morning with no hurry, but now time is short. 'Do you think I can manage three Arithmetic cards?' 'Well, see how you get on. Don't forget that you need some time to tidy up before

Megan has found a new way of working with the multiplication table. She feels it as a personal insult that just now, when she is so enjoying the work, she has to bother about tidying up.

Jose has lined up a whole lot of objects which he still wants to weigh. He estimates the weight, enters it on a list, and then weighs it on the balance scales as precisely as he can. It often takes quite a while to get the balance right; adding up the weights is a slow process and then he still has to work out the difference between the estimate and the actual figure. Quito obviously he has set himself too much. 'But will I remember tomorrow which things I wanted to weigh' Besides weighing and reckoning, he is learning something that will be useful oil his life, whatever work he does - to organise his work to fit the time available.

Before I go off, with the recorder players to the other house, where the cembalo is, there is another excitement. The secretary brings in the copies of the week's homework – a sheet for each child, in three grades of difficulty. The children can, but are not obliged to, choose a sheer for each day. 'They snatch at them as though they were flesh rolls, read them at once, and discuss them together. 'Which question do you like best'" 'I know which ones I want to do - can you tell me what this means'!' One child returns the sheet: 'I haven't time this week, we have visitors from Guayaquil and we want to take them out every day'. They all appreciate the quiet understanding that family activities are just as important as school ones, if not more so. It' a child is absent because he is doing something interesting with the family, that is an acceptable reason. 'My son came with me on a business trip' or 'My daughter came shopping with me yesterday', appears just its often on the

notes from home as 'He could not come to school because of a sore throat'. Whether or not the homework is handed in is also voluntary. Anyone who wants it looked at by me lays it on the appropriate shelf, pictures, illustrations and newspaper cuttings go on the blackboard, craftwork of interesting objects on the exhibition table. Experiments or recipes art: demonstrated to the other children during the week. Often a child will not show me any homework for several weeks, until he wants: my advice on a specific point, and then I see with astonishment that he has worked regularly every week without feeling any need to show me his researches. The parents, too, report with surprise that the children discuss their homework with them without being asked. But they know that it is the children's affair whether they do a lot of it, a little, or none at all. Sometimes if a child is really interested, the parents have difficulty in getting him to bed.

Thus the distribution of the homework sheets is a happy ceremony, which gives Monday something special and is impatiently awaited by the children.

The first day of the school week ends in happy mood. The little recorder players work full out until the last minute, then run to the waiting buses. There are always one or two children who want to work right up to the departure time; the others end the morning with playing, reading or craft. No sign anywhere of tiredness or boredom, rather an urgency about using the time and 'living life to the full', a feeling that continues, in more sober guise for safety reasons, on the bus journey home. Until it is time to get out, they are all busy singing, making rhymes, chatting, playing, learning German or French or English, asking each other tables or making plans for the next day.

9: Every Day Is Different

'How can a school get on without a timetable?' This is the horrified question from many teachers first experiencing an open classroom. In fact our structuring is minimal, but sufficient to give each day its own colour, and to make 'staging-posts' for the children during the week. The final hour of each day is given over to one activity which extends over the whole year:- Monday: recorder beginners, Thursday: advanced recorders, Tuesday: ORFF music or Movement, Wednesday: English or French, Friday: story-time. The children register for many activities at the start of the year and commit themselves to remain until its end. If they do lose interest and drop out

halfway, they are not allowed to come back until the following year. They understand that a group activity cannot progress unless attendance is constant.

Other activities can be chosen on the day, and here the commitment is not to leave until the end. Occasionally it happens that everyone is so involved in other work that the minimum of six participants is not reached, in which case the activity is left aside. Participation in all organized group activities is voluntary, and those who do not join in are free to engage in anything that will not disturb the working group. However, any child who does join in thereby submits to group discipline and the danger of being 'thrown out' if he disturbs the others.

Besides these activities within the school buildings, the children go swimming every Tuesday and on an excursion every Thursday. The swimming-bath, fed by fresh lukewarm water, is in an idyllic valley at the foot of an extinct volcano, and we are usually the only morning visitors. The instruction is geared to the needs of each child. The youngest are often a little scared to start with, so we let them sit on the edge and watch the others swimming, jumpily, diving, for as long as they feel like it. Many only gradually dare come into the water and are stiff and fearful, but by means of little games and the chance to experiment as far as their courage will take them, even the most anxious gradually loosen up, try out various primitive ways of swimming and eventually ask to be shown some more. Long before they can do orthodox styles they are happily going into the deep end, saying proudly, 'No one taught me how to swim, I learnt by myself!' This coming to terms with a new element, the gradual victory over fear, the chance of a long period of experiment in the safe proximity to adults who will help without taking charge - all these are unconsciously transferred to other fields of learning, and just as they did in the water, so in other situations they learn to relax and go ahead and trust themselves to do more.

Another 'staging-post' in the rhythm of the week is the excursion which takes place every Thursday. Every other week it is a hike, often involving adventures in steep ravines, dark tunnels through which we try to go by torchlight, streams which we leap across or ford to the detriment of our clothes. On the previous day we work out which shoes and clothes to take and what sort of containers for the insects, plants and rocks which often form a nature exhibition afterwards. The 'herbarium' is replanted, some plants dried, drawings are made, dead insects pressed, nature-books

consulted, and the parents receive gifts of strange plants found in the depths of some nameless dank ravine. But the best souvenirs are the children's memories of the events. As they trudge and climb they tell each other about the best adventures, and if there is a new child they embroider them colourfully. 'Do you remember last year? Tania lost her shoe in the river, and Santiago jumped in with all his clothes on. Then we all did, and we swam in our clothes and had to come back to school in our underpants. And then it was best of all - we made ourselves new clothes and shoes and stockings, and we used up all Rebeca's old sheets and tablecloths. You should have seen our mothers' faces when we got out of the bus!'

Then, as we slide down a thirty-yard sandy slope on our behinds, they remember: 'Do you remember how we tried to climb up this cliff last year? Vinicio pulled us up with ropes, but we were all laughing so much that we kept sliding down again, and it took an hour until we were all up.'

Every outing has its own stories. Even the least athletic make enormous efforts to overcome obstacles after all, everyone wants to arrive home safely. On a long climb, if one child says he cannot go any further, the others reply good-humouredly, 'Then just stay here and we'll fetch you in a fortnight'. How they all rush to a little waterfall to cool faces and hands after a long climb! And if there is a new child who doesn't like walking or is too fat, they comfort him. 'We used to be like that. You will soon get used to it, and you will get thinner too.' Although it is possible to stay behind, it is very rare that anyone does. Usually there is: a child who wants proof that everything really is voluntary, or needs to assert his independence. But when such children hear the glowing reports of the others' adventures, they usually decide to join us next time.

On the intervening Thursdays we visit somewhere where we can learn about the work adults do, or the lives of children under other conditions, or see evidence of our culture. These expeditions have to be prepared with particular care, so that the children can be allowed into these places and given appropriate explanations, it is important that they are not simply herded through a museum or a factory, but allowed to investigate everything, touch as much as possible, try out, ask, talk to workers and foremen, and come home with a child-centred unforgettable experience, rather than a mass of facts. Thus we speak first to the owner of the factory. Sometimes he may find a way of allowing the children to try out the processes themselves.

Often we are given waste materials which are very useful for projects and inventions back at school.

In the museum of Inca history the children are allowed to hold some of the exhibits, and the guide sits down on the floor with them and chats about history.

At an orchestral rehearsal they are allowed to sit by the musicians and watch them play, and even to try out a few of the instruments afterwards. At the zoo they are allowed to help with feeding time, and then to go to the little laboratory where the taxidermist - a delightful man, no larger than a ten-year-old himself and a longstanding friend - lets them help him stuff the dead animals. At the fire station they trade a ride in the fire engine for a parcel of specially painted pictures.

When we go into shops the children are full of questions about prices, origins of the products, sales records. They enter it all in their notebooks, compare prices in Quito with prices in Tumbaco, and buy provisions for the school. In the various restaurants they compare work methods, origin of the materials, menus, prices, and note the number of clients over various lengths of time, and make graphs, which they eventually gave to the proprietors. In the training centre for the handicapped they learn various work procedures, try to make contact with the deaf and dumb, and invite a group to visit them at school.

The most impressive demonstration of the in-exhaustible curiosity and thirst for knowledge in the children upon whom no pressure is placed, occurred at a visit to the chemistry laboratories at the University of Ecuador. We had arranged with the Professor, one of whose children attends our school, that the children should have just a little introduction to chemistry, lasting at most an hour. Three hours later, we had difficulty in persuading them to come away. For an hour they had taken part in experiments, blown glass, looked through microscopes with the technicians, and voluntarily given blood samples. Their notebooks were full of sonorous scientific terms, which they read out to each other in the bus. They had completely forgotten about eating or drinking, and their only worry was how long they would have to wait until they could visit the university again. 'This excursion was allowed by a long period of experimentation, not only at school, but also at home.

Although we do not demand an instant response to these excursions, respecting the need to 'store up' experiences, we find they spark off reports, pictures, models, writings, calculations. Some of our favourite reading material is the large collection of essays about these meetings with the world, many typed out at dictation because the smaller children cannot yet write fluently enough to do their thoughts justice.

Those experiences that have made all especial impressions are captured in a home made illustrated book, which goes into the library. Others are: printed and copies distributed to everyone. However, all this only comes about when the children feel under no pressure to do it.

If new human contacts have been made on an outing, there is then considerable activity in making things, baking, writing, painting. Letters and 'thank you presents' give the new feelings fitting expression; or after a visit to an orphanage the children wish to send some of their own toys and clothes to the children there.

Each time we attempt to evaluate the experiences. Are they alive and complete? Or too complicated and too overwhelming? In this way we ourselves learn just as much as the children and draw conclusions for later occasions. All this calls for a high degree, unperceived by the children, of forward planning - as does the open classroom itself, where the planning is not made obvious by timetables and bells. Here every 'interest centre' is carefully thought through and equipped with attractive material graded to the children's varying levels of experience and development. There has to be an abundance both of structured and unstructured material, and every centre has materials suited to operative, figurative and connotative learning. It is absolutely essential for each adult not only to be quite secure with the materials but also to be able to estimate the stage of development and the thought-structures of each individual child; because this is the only way that he will be able to give the best possible assistance in the trying-out and exploration of the materials. It is in this harmonising of outer stimulus and inner condition, which issues in intelligent action, that we find the key to many doors which connect otherwise isolated spheres of knowledge - on the one hand the often only theoretically handled departments of psychology and education, and on the other the 'material' that the syllabus dictates the children should learn. Usually these two are hard to unite in practice unless the basic pre-condition of the child is respected with its own laws: above all, the need for concrete activity as opposed to verbal transmission of content

and skills, and, intimately connected, the freedom to move about and talk freely to other children.

What enables the teacher in the active school to plan his teaching is not what he can 'swot up', but his exact observation of the spontaneous activity of the children as they interact with tangible materials and other children. Each day we modify the environment in accordance with our observations of the previous day. We put hidden materials into a new place, to be discovered again; we bring in all sorts of new materials, and see what ensues. We take heed of the children who are led by new 'plastic materials' to ever fresh self-expression and more co-ordinated use of their hands, and others who are galvanised into life by new natural objects, and unexpectedly leap forward in their reading; yet others who need new parallel arithmetical material to become more certain of one of the processes before they can move on to anything harder. This constant alteration without disturbing the basic order, gives new stimuli for fresh activity and prevents the children from becoming bored.

In our planning we have to learn to distinguish which method will best lead on to further activity in each case. The active classroom allows us the greatest flexibility. For example, we can introduce some new objects and wait and see what the children do with them. If they are interested we can go a step further and, having observed the initial spontaneous response, show a few children some further possibilities. Another frequently used method is to busy ourselves intensively with a new material. Usually the children are curious and ask what we are doing. Some are immediately interested and ask to be shown what to do; others, unmoved, explain that they have no time at present and might come back later.

Now and again we have tried the experiment of suggesting a theme for the week and inviting the children to follow it up in their own way. For example the theme 'water': the children can paint pictures, build ships, try out experiments, measure it, weigh it, read, write, learn geography, go clown to the river, play with water. However, every time we have tried this, the children have lost interest the following day. If we tried to persist with our idea their level of activity and concentration dropped markedly. So we came to the conclusion that the under ten's are too young even for so 'loose' a schedule, and that it is better to follow up their own spontaneous interests as they arise each day.

Often they come to school full of ideas which they communicate to their friends. Other times it is a 'coincidence' which sets off a whole avalanche of activities and keeps everyone busy for a long time. Recently an army helicopter circled noisily over the grounds, went away and returned, all this taking about half an hour. Naturally everyone came out, passing our one telescope from one to the next, and the children's commentaries became ever more imaginative. But as the helicopter suddenly landed in our neighbour's field, there was no holding them. We all climbed over the wall, overgrown as it was with prickly pears, and got to the helicopter just as it was taking off again. We felt as though we could almost have touched the wheels, and all of us felt we had been directly in touch with the big world outside.

Here was material for a long time - to talk about, to draw, to write detective stories (one is preserved in print from our print shop), make researches into helicopters and how they work, comparisons of the speeds of various means of transport; and for one eight-year-old it start on his first 'adult' book, Jules Verne's 'Around The World in 80 Days'

Another 'chance happening' that called forth a chain reaction of spontaneous interests was the birth of a llama baby, experienced by all with a deep feeling of wonder. Every child began to talk about his: own birth. Later we found the afterbirth in the grass, and the asking, showing, headshaking, consultation of biology books was never-ending.

Not all events are as overwhelming as these two, but seemingly insignificant experiences can unexpectedly set off activity - a bird that has strayed into the classroom, a spider that has spun her web between two pillars overnight, a neighbour's cat locked in battle with ours. Now and again, when there has been a storm, or too much water has: been let into our reservoir, we have a flood. Boats are built, voyages: embarked upon, new plantations begun, diversionary canals and elaborate bridges built, jumping practice and novel experiments are the order of the day

It is just such interruptions (feared in a 'normal' school because they distract the pupils from the planned course of instruction) which are welcomed as enhancements of our life in the 'active school'. They bring us more 'life', and give us material and stimulus for group conversation, creation or acquisition of new material, and not least for reading, writing and arithmetic.

We also welcome the chance for little celebrations, making numerous preparations, and feeling very busy and very happy. In preparation for special occasions, we hold meetings. For instance, if we are expecting children from another school, the children plan together what to cook for the meal, what they and their guests could do together, or how they should be if the visitors do not abide by our internal rules. If there is a cultural event, a play, film, exhibition, to which parents are invited, the older children take the opportunity to organize a bazaar to raise money for the annual bit: trip. Biscuits are baked, weighed, put in bags and priced; homemade books of recipes, songs or poems, are printed, bound and decorated; windmills and little toys made for the smaller children. 'If a child wants a toy, the parents cannot resist', was the apt comment of a business-minded seven-year-old. There is lots of work to do, and much thought given to expenditure and possible profit. The actual sale is a great excitement, and when the money is counted the tension has to be felt to be believed.

No effort is too much for the children - they will clean shoes for their relatives, wash cars, carry shopping. One little girl, no great worker, offered in our assembly to go begging on the streets, but this suggestion was turned down as undignified'; so she turned her energy to painting and writing, and unexpectedly brought hidden talents to light.

We held a special 'going away party' for a little girl who had been invited to relatives in Alaska. Her farewell present was a book, with a page of pictures and advice from each child. The children cooked an excellent meal and decorated the classroom. As we all sat together at the long tables, the children asked endless questions about Alaska and the journey and other related subjects, and the party ended in a geography seminar with books and pictures and immense interest from everyone. Before the end of the year most of the children had written extremely original and interesting letters about life at school and on our outings. The postage for the large packet was financed by the school fund, and the answers from Alaska were read aloud to universal enthusiasm, and have been kept in our Freinet files as important reading material about Alaska.

Often one child's current interest will influence everybody. Maria Belen was having treatment for her eyes, and the classroom became an eye clinic for hours at a time, with Maria at its head. She hung up a notice 'Eye Clinic' and a reading board in the library with a table holding typewriter, rubber stamps, receipts and all sorts of office materials. In a short time she was

overwhelmed with patients, and ordered them all about authoritatively (let no mistake escape her), and wrote out countless prescriptions for spectacles. A small spectacle-making industry (cardboard and coloured transparent paper, different colours for different complaints) grew up; money was created and brought into circulation. A waiting-room was: set up in the library, and the waiting 'clients' passed the time reading books and newspapers. Those who had finished their treatment could now go about their own occupations, undisturbed by the lively activity in the library, and adorned with a pair of interesting looking glasses.

The following day a general medical practice was opened on the other side of the library. Two tables put together and covered with white paper served as the examination table. Stethoscope. blood-pressure gauge, bandages, microscope, test tubes, magnifying glasses, droppers, and all sorts of wonderful medicines joined the prescription pads and reference books about the human body.

Numerous children were examined, treated and sent to the newly created pharmacy, with its natural medicine (plants from the garden) section. Although all these activities took up much of the classroom and engendered much business, they in no way hindered the continuance of 'normal school work', with considerable concentration on the other side of the room.

Now and then the school print shop becomes a daily newspaper. Subscriptions are collected. news brought in and prepared for printing, teachers and pupils: are interviewed. Excitement mounts as the first proof copy is ready for correction and the first edition comes out. This spirit of enterprise often awakes unexpectedly. Not only the primary school but the kindergarten too becomes a research institute, with children being measured and statistics collected as to eye colour, favourite dishes, sicknesses and treatments, and the numbers established for happy, sad, noisy or quiet children in different parts of the kindergarten.

No day is like any other; there is never a continuous combination or succession of activities. Feelings, too, undergo bit: changes and need to be taken seriously. Although the children's vitality and readiness: to be happy generally far exceeds that of the adults, there are still 'grey days upon which we have to be ready to offer all kinds of help, comfort and reassurance if the day is to run harmoniously. I remember especially one particular morning. A whole group of children of varying ages disappeared early in the day into

the little Wendy house which we use for private conversations, family games, or for reading aloud or listening to music. Suddenly a little girl in tears shot out of the Wendy house and took refuge in my lap. It was impossible to find out what was the matter. When she had settled a little I went to the house and, to my dismay, registered that ten more children were sitting in there howling like dogs at a full moon. I crawled in and sat down on the floor - could I help at all? The children stopped and looked embarrassingly at each other. Had there been a quarrel? No, no-one had been quarrelling. Did anything hurt? No, no, nothing had hurt them. Finally they gave me, courteously but clearly to understand that I had no business to be disturbing them. They just wanted to cry. It was nobody's fault, nobody had begun it, and could I please go out again so that they could continue? I withdrew feeling small and helpless, unable to have any influence even in the matter of 'happy feelings'. The weeping lasted another hour, and then the children emerged red-eyed and each went about his own work. I refrained from further questions, and restricted myself to helping with outer activities. At the end of the morning all was back in balance. We had no explanation for all this, and entered it in our diaries as some sort of natural phenomenon. But what might have happened if we had forced the children to 'stop being silly' and get straight on with their work?

The active classroom makes use of a variety of inconspicuous aids to encourage the children's activities, awaken their curiosity, further their concentration and staying-power, unify conscious and unconscious, and not to flinch from the unexpected.

A small wooden box with a slot, marked 'Requests' sometimes gives rise to activities which are at the same time planned and unplanned. It remains unused for weeks on end, and then there is a sudden and inexplicable epidemic of questions: the children write and write, and the box is full to the brim. Then they go through the grounds with drums and cowbells and summon a meeting. We sit in a big circle and the box passes from hand to hand. Each child may read one slip aloud, and the younger ones who cannot yet read fluently are helped by the older ones. There are personal questions - 'Why does Florencia wear her hair Long?' - to which, in keeping with our internal rules, the answers are purely voluntary. But most of them are 'scientific', and often such as to embarrass us adults, whether because we do not remember exactly what we learnt several years ago, or because we do not know how to explain it. Most of these questions are a living witness that children are natural 'universalists' and are interested, not in easily

comprehensible details, but in the totality of knowledge. Piaget describes this phenomenon in his 'Psychology and Education':-

'His fruitful ideas on interest, practice and activity aside, Pestalozzi too fell victim to the current concept of the child who carries the complete adult within himself, and of the pre-formed intellect. And this is why the Pestalozzi Institutes, besides their remarkable characteristics, have so many features that are, from the point of view of the present active schools, simply out of date. For example, Pestalozzi was convinced of the necessity to progress, in all branches of instruction from the simple to the complex - but today everyone knows how relative 'simplicity' can be and that children start from the total and undifferentiated. Generally speaking, Pestalozzi was obsessed by a certain systematic formalism, which manifested in his time-tables, his classification of the educational materials, his exercises for training the intelligence, his mania for demonstrations: his mistakes here show clearly enough how little account he really took of the detailed development of the intellect.

The first time that we sat in our circle the question was "What is air?" I did not know what I would say. All that I knew about children's logic and use of 'why?' at this age spoke against any causative answer. If I were to believe my own experience, any verbal explanation, be it never so simple, would lead me onto very thin ice. Fortunately the children themselves took matters in hand. I listened open-mouthed as they gave each other the explanations which corresponded to their thinking, and a 'discussion' unfolded which was not really a discussion because it served as a vehicle for each child without the participants following up, or indeed really listening to, each other. This egocentric type of discussion, often described by Piaget, is typical of children who know that they are under no pressure from adult authority. However, was it my duty as the teacher to extend their knowledge, clarify their concepts, raise their level of consciousness? I sat in the circle and tried to feel just exactly what was required of me; and there was no doubt at all - it was an exceptional opportunity to start by really listening. If I did not pass up this chance by behaving wrongly, I could gain great benefit from the situation, and come a little nearer to a true understanding of the thought processes of the children in my class. At this moment I wished that I had plugged in the tape-recorder. 'Why is there air?' The answers tumbled out, and the children had to call each other to order to give each one a chance to speak. 'We need the air to breathe.' 'The animals need to breathe too. "It would be too hot without air.' 'The air dries the washing.' 'The air moved the

leaves.' 'God made the air.' 'We have a book at home which tells you why there is air.' 'Sometimes there is a nice smell and I breathe deeply. Sometimes there is a stink and I would rather not breathe.' 'The aeroplanes need air to fly in.'

This is a tiny selection of these spontaneous answers. I asked whether the children wanted me to say anything. Without a second's hesitation came the answer, 'No thank you, we have answered that question now.' The next child reached for the box, and I had no time to worry about my undefined role. But before the next discussion had begun I had resolved to find out about various experiments with air and to supply the materials during the next few days. 'Why are there people?'" Great excitement, and again the need to quieten everyone. 'School would be empty without us'. 'God makes people.' 'So that people will cultivate the earth.'" Because someone has to do the thinking. "If people did not think, there would be no things in the world.' 'People build houses.' 'And cars.' 'And factories.'" People feed the dogs." There are people so that they can enjoy life.' I put in a word, but only to reinforce what the children had said and to promise to put out some books for them afterwards. The remark was noted and the box passed to the next child.

'Why are there parents?' Seven children replied, 'To make us happy'; one, 'So they can give us food and clothes.' Only one nine-year-old girl came out with the idea that 'without parents, we would not be here'.

Among all these 'Why' questions was one which the children could not handle alone, and I was officially called in to help. 'Why do they speak English in the United States?' I made sure; by detailed questioning, that they really wanted me to tell them, and when they had all agreed upon it, I told them, with the help of many stories and picture books, about the Mayflower, the Pilgrim Fathers, the fights with the Indians, the Wars of independence. They listened fascinated, wanted to hear this or that in English from the English-speaking children, and went to the library for books about the United States.

Up to now, I have emphasised that activities are initiated by the children; and I may have given the impression that adults in an active school-never take the initiative and never dare assume the lead. This would not be a true picture; but it still needs to be quite clear that every adult initiative is the consequent following up of direct observing the children in a day-to-day

situation. It is only his skill in observing the child's interests and stage of development. Occasionally we will call together a small group of children for formal reading practice; but the materials and methods are geared to their needs and interests. Or I may turn to an individual child and say, 'When you have finished writing, I would like to show you some new arithmetic that I have worked out for you'. Or to another, 'In five minutes we will do a dictation, to give you practice with those commas which gave you trouble yesterday'. Or to a group of boys, 'Have you seen the new cards in the index? They are about experiments with fire'.

Children who cannot tolerate these direct invitations, or in some cases instructions, thereby show that they still have an 'authority problem'. This is easy to understand if they have just come from another school, and in these cases we take the greatest care. But if a child has been with us a long time, and still reacts negatively to direct leadership, we begin to suspect that the root of the problem lies at home.

Thus, the active school does not work with any one method, but creates many different living and learning situations. Every situation and every child must be adapted to. Every day must be 'felt out' afresh. Every day must give the child the chance to feel totally alive. He must be allowed to live the present to the full, without being plagued by the requirements of an unknown future. In his essay 'Biology and Education', Jose Ortega y Gasset writes as follows:

'Usually we believe that the best way of producing perfect man is to adapt the child to the adult ideal. In my previous articles I have stressed that what is needed is the reverse. Maturity and culture are in no way the creation of the adult or the scholar, by far more of the untutored and the child. Let us allow our children to grow up perfectly by forgetting, as far as we can, that they will one day be men and women. Let us bring up children to be children, not according to the ideal of the perfect adult, but following the criteria of childhood. The best adult is never the man who has been less of a child, but on the contrary, the man who still on his thirtieth birthday can find all the most wonderful treasures of childhood heaped up in his heart.

A Three fold Unity

The question of curriculum and syllabus gives rise to as much doubt and confusion among both friends and enemies of the open school as does that of discipline and freedom. Whenever we speak with adults about the child's freedom to follow up his interests and experience the joy of learning, it is rare that we do not hear the objections....'What if the child only ever wants to do one thing? What do you do if a child does not want to learn the three R's? Do you not agree that every child ought to master a certain minimum syllabus if he is to survive in our civilization?' Or there is the worry, 'How can these children pass the entrance exam to secondary school, if they only ever do what they enjoy.

Our colleagues from other schools, and the responsible officials in the Ministry of Culture, are concerned to know how the official syllabus, which applies to the whole country, can be reconciled with the active system. In a country like Ecuador, which tries to unify different races, and even to assimilate those settlements which cannot be reached by road, it seems especially important to create a feeling of unity by having the same syllabus throughout the land. Whether in Quito, in Quayaquil, in the furthest Andean village miles up in the mountains, the most hidden jungle settlement near the Amazon or on the Pacific coast, it seems to give some security to think that the children are garnering their knowledge from the same textbooks, the same reading cards and posters, printed in the capital, and can in any one month show the same knowledge in all school subjects, and repeat the same heroic deeds from the War of Independence!

Since childhood we have been accustomed to hear the school bell, close the arithmetic books and open the history ones five minutes later, and so on until we have been right through the timetable. Maybe there has always been some doubt as to whether there is really a definite amount of knowledge which can be acquired in a certain number of years, and a scholastic aim that can be achieved at the end of a school year, or entire school attendance - if we divide up the prescribed knowledge equally over the available days, weeks, months, and years - but in practice this is what has seemed to happen. If any schooldays were missed out the teachers generally had to re-organize the material that the 'scholastic aim' could be achieved at the end of the year and the school books shut with a clear conscience. If sickness or inattention left a gap in the knowledge expected of a pupil, an extra tutor could be fetched in, or there had to be a lot of catching up in the holidays.

It often seemed to us that the teachers hoped to cover all the material in the shortest possible time, and we children also took pride in it. I still remember how we used to flaunt the fact that we had covered more of such and such a subject than the parallel class. Were we not the 'A' class who could learn more quickly than the 'B's' and 'C's'?"

Most adults agree that they remember very little of what they were taught at school - but they are still careful to keep their certificates in a safe place. People forced by circumstance to adapt to totally new surroundings and values are often shocked by the entirely questionable or relative worth of what they learnt at school. Material that had earlier been uncritically absorbed loses its 'absoluteness' and even 'the best way to start' becomes a problem. Many of our expatriate friends in Ecuador had years of 'culture shock'. Many began by spending a considerable amount of time abusing 'these stupid Ecuadoreans' but after several years abroad they were no longer able to feel at home in their own countries with their own compatriots 'who had never learnt to adapt to other ways of living'

In his book 'Future Shock', Alvin Toffler postulates that a similar shock in the future awaits all those who have grown up with the security of a fixed syllabus and constant values and customs. The firm edifice of reliable basic knowledge is so swiftly demolished by ever new researches that what a schoolchild learns today can tomorrow be outdated and even false. 'Tomorrow's illiterate will not be the man who cannot read but the man who has not learnt to learn,' warns Toffler. But what does he mean by this 'ability to learn'?"

He is convinced that today's schoolchildren will become adult in a world that is unimaginably different from the world of today. The knowledge and ways of working upon which we as teachers base our authority, and which have served us adequately up till now, may, we should begin to realize, be a hindrance to the children of tomorrow. In one chapter Toffler explains that our system of education must evolve and change if it is to do justice to the needs of the-future. He makes concrete suggestions to assist us to think anew about the school curriculum. Here are some of his basic suggestions for reform: a flexible organization that operates not continuously but at need and according to circumstance; decentralization; penetration by school children into the real life and work of present day society; relaxation of rigid timetables and divisions into classes, elastic syllabi in which not everyone

has to master the same material, but without the loss: of a general human 'connectedness' which offers significant marking points: and possibilities to establish contact; instead of a unified curriculum a systematic fostering of the abilities which help human contact and social integration; a curriculum not only flexible and manifold, but also able consciously to take account of the possibility of unknown factors - in fact a completely open curriculum.

Preparation for an unknown future entails that every young person should already now begin to learn, rather than fixed data of no use in practical living, how to weed out unusable ideas and replace them with new ones. He must learn to trust his own inner guidance which enables him to face the many new ideas and values and select those which are valid for his situation. From the firm position made possible by the sureness of his individual judgement and integrated feelings it can be possible, in a world full of change and unforeseen eventualities, for the young person to arrange and rearrange information and test its truth, moving from concrete to abstract and back again, and approaching the problem from many different angles.

Toffler foresees that in future it will be even harder than it is now to enter upon worthwhile human relationships and to continue in them. Thus today's children should have the chance to become used to cherishing human relationships, and in this way it may be easier for them as adults to have worthwhile contact, without detours and waste of time, with the people who are really suited to them. School time should not be wasted in 'sitting next to someone' with all eyes upon a blackboard. Constant direct contact among the children, and the freedom to choose partners in work or play according to their own feelings, are absolutely necessary, as practice in being able to make genuine relationships in the future.

Another skill that will be ever more demanded of us is that of choosing - choosing, among innumerable possibilities of every kind, without losing ourselves in a whirlpool of ideas, possibilities of occupying ourselves and offers of material goods.

For Toffler there is no doubt that people relying only upon knowledge from outside, who have not developed an inner personal security, will suffer painful 'future shock', only inadequately prefigured by the types of disturbance that plague modern man today.

People who have only learnt to follow a programme imposed from without are also in danger of being 're-programmed' from outside themselves by the pressure of a new society. Without an active inner life and a full awareness of his own humanity, even the most intelligent person lacks the specifically human qualities that his own inner 'programming' can set against the 'programming' from outside, which threatens to endanger the integrity of his being. Here there is a yawning gap in our syllabi, a gap that is especially disastrous in our meeting with the inner worlds and dynamic exchanges between inner and outer that make our lives worth living.

In place of one universally adopted syllabus, the active school offers the cultivation of life-renewing learning processes, hoping to avoid giving the children an impression that education is something to be 'completed' in stages, after which it is 'finished'. The active school attempts to avoid endangering the child's personal unity. Once the young person becomes accustomed to splitting reality, to postponing living until the bell goes or the exam has been passed, it becomes harder for him with each successive year to find his way back to a feeling of wholeness and health. So a meaningful curriculum begins where the child 'is at' at the time. It takes into account the nature of the child, and does not 'senselessly' separate the growing organism from its own senses - 'If you sit nice and still, don't try to see out of the window, don't talk to your neighbours, keep your hands on the table, and listen to me, then you can learn something useful'. Then the schoolbooks are opened and the world introduced through the spectacles of a commission of educational experts. The teacher explains, writes on the blackboard, leads the discussions. The children listen, write, and as far as possible come up with the 'right' answers.

A meaningful curriculum preserves the unity of the child with himself and his world. It relies on the childlike characteristics, which contribute to the strength of the child's organism - urge to move about, curiosity; strength of feeling, and joy in senses. So in the active school, books, tables and chairs are not dispensed with altogether, but have far less importance than the continuously self-renewing environment full of - concrete materials and many inducements to practical activities. Once the children really get going, each displays his individual character - by the way he moves, speaks, laughs, expresses sadness, makes contacts. If we try to suppress these strong sides of a child's character, to convert him as soon as possible to our adult perspectives, and to push him into analytical and reflective thought, then the child will gradually lose his natural curiosity. His senses will be dulled, his

inborn practical intelligence dives for cover and often reappears in undesirable ways.

In the book already mentioned, by David Elkind, he speaks of a threefold curriculum which radiates concentrically from each child. its centre is always the child himself in his totality. From the centre grows the harmony that penetrates all the learning processes, as well as the curriculum of the child's own interests, his developmental stages, and his gradual introduction to, and participation in, the general cultures.

The first of the concentric circles, in which the energy for all further processes is generated, has: its centre in the child's own interests. These interests originate in the need to feel, to move, to love and to be: loved. We cannot be too aware that a curriculum that does not take these basic needs into account endangers the unity of the young organism and cuts off the learning process: from its original impulse, which at first has to follow the laws of its own growth. As soon as we begin to dam this: natural spring of energy, we are forced to rely upon external motivation for learning - reward and punishment, playing off one child against another, promising great rewards which leave the child waiting tensely for the future; or in more positive cases, the acrobatics of a teacher which can so 'enthrall' the children that they happily learn what he has to offer. Through these mechanisms the guidance and programming of the child is externalized, and the full experience of the present - including the pain that can be experienced when the child is in full contact with himself - is replaced by promises of a future which as experience shows us, is very difficult to convert back into present reality.

The threefold simple curriculum

The child with its energy and its needs

The first curriculum of personal interests

The second curriculum of developmental stages

The third curriculum of the gradual taking part in the general culture

What are the objects of children's natural interests in the first school years?
Above all, people; in the first place the self and the family, and this

gradually extends to include other people, animals, nature, and anything that can be handled without danger, and finally with adult life where it has not become too complicated and unnatural. This means that we have to take the child seriously in all that he experiences and that makes an impression on him outside school hours. Every morning the children come and recount what has happened to them. bring some interesting from their family life, and translate it into painting, writing playing, number work and all the activities which are made possible by the materials laid out ready at school. The same unbroken curiosity leads the children towards new stimuli at school, towards opportunities for observation, experiment, questioning and imitating.

Slowly the circle of experience widens, and from the little world of personal experiences develops the picture of a manifold and many-layered reality. So we rejoice in every spontaneous interest and help the child stepwise - 'How many new ways can you find to do what you have seen the others doing'? How can you watch more closely? How many differences can you see? How many similarities? What happens if you do this or do that?'

All operative, figurative and connotative learning is based initially upon the child's own interests. The child learns: to write down his experiences, to sum them up, to measure them, to draw graphs, to read about the experiences of others in the same matters. The child speaks gladly and uninhibitedly about his experiences, and gradually to notice that his own perspective does not always: agree with experience.

Spurred on by his personal interests, the child widens the circle of his experiences, and in accordance with his nature and the laws of maturing and growth, he traverses the stages of development. These stages are the same for all children, but the personal rhythm is different. Whether it is a question of intellectual or social growth, the stages of development influence all the child's thinking and activity. Through practical activity each child works out afresh the concepts of mass, weight and volume, space, time, causality, speed, movement and geometry; and this curriculum is of ten quite different from what is prescribed at school. Current textbooks show ample evidence that the educational planners take hardly any account of children's inner development.

For example, a modern workbook for second-formers shows whole series of family relationships, and the children art: expected to work out who has

done what to whom if one is the uncle of a second, father of a third, etc. Have the writers of this book ever taken the trouble to look up what Piaget has discovered about the ability of children to understand relationships'. How can seven year old manage, without losing trust in their own abilities, to cope intelligently that is without the advice or intervention of the teacher? With such a text, when it has been proved that, according to their 'developmental curriculum', they will not really feel at home with these relationships until shortly before the onset of puberty?

Another example from the same book:

Accounts of a dream and of a true occurrence are planted side-by-side on a page, and the children are supposed to say which is the dream and which the reality. The child is supposed to be able to analyse straight off the ways of recognizing these subtle differences. He then has to produce a similar story - once as dream and once as real event - on a prescribed subject.

This exercise assumes that seven-year-olds are at home with reflective thought, that they are able to differentiate in their own lives between dream and reality, and to recognize these differences in printed text - and all this when they have not long learnt to read. Once again the study of children's development shows that this kind of reflective thinking first becomes natural at puberty, and only appears in smaller children as an intuition which cannot be forced. However, the child can attain mastery in practical thought if we give him sufficient opportunity.

It is not only our language textbooks that are so written that children have to rely upon guessing what adults want (and thereby turning themselves into psychology manuals). Arithmetic too, under the right conditions the most natural occupation for the child's growing intellect, requires a sixth sense if the child is to handle all the symbols, which are hard to reconcile with the daily coming and going, give and take, measuring, lifting and comparing, all the activities which are usually strictly forbidden in school time.

The active school's aim is to allow every child to learn, according to the rhythm of his own development, through real activity in a real world, not the printed world of the schoolbooks. In a group of children of different ages, it is not hard for the teacher to take the different developmental stages into account. Real situations unite children of different ages in a common

activity, but the way of learning is different for each child. One of the most fascinating activities for the teacher is to observe the children in their activities, listen to their conversations, and estimate their stages of development from the nature of their questions and answers. Through these observations he will manage ever more often to meet them at their own level, and feel close to them.

Perhaps the reader will ask, 'Is it not precisely the teacher's duty to spur the children on to adult thinking and free them from their illogical, childish ways of thought?'

We can attempt to answer this question in various ways.

If we respect every child in the stage he is at, we allow him above all a great degree of personal security. At the same time, we allow him to experience as much as possible at the current stage, and to proceed effortlessly with a feeling of great enrichment to the next stage. This is a natural, and therefore a slow, procedure. It is: our task to create the right conditions for it, but not to speed it up. If we adults can manage to avoid disturbing, through our impatience, these inner processes but rather to give them sufficient nourishment, the child will learn to stand on his own feet and not to spend his whole life: depending on directions from outside.

From these first two concentric circles, which arise from the personal interest and natural growth of the child, grows, in new and further circles, the third 'Curriculum', which leads on to a conquest of the world, a dynamic connection with the experiences of other people and introduction to the general culture. Slowly the child discovers that what he experiences is interconnected with the experiences of other people in faraway places or in the past, and gradually now he begins to start thinking about the future.

In this stage of new and intensive interests, it is important not only what a child learns, but how he learns it. The 'active teacher' must never cease to observe the children in their surroundings and situation~, so as to arrive at an assessment of the new situations and steps into the wider world for which those in his care: could now be ready. As long as the children are still small, the adult must avoid interrupting the natural bubbling-up of their thoughts, arising from their own experiences, by interpolating artificial subdivisions. It is not important that they should 'learn the material' but that they should be able to discover common elements, to solve the problems of diverse

situations, and find out abiding 'laws' of nature and try them out in various contexts. Once the foundations have been laid for analytical thought, it can well be very useful to establish divisions by subject, so as to allow the children to go more deeply into various branches of knowledge. But the trends of modern scholarship show that this division later gives way to a renewed seeking for cross-disciplinary links in the: striving towards creative thought at a higher level.

How does the active school succeed in furthering learning and practical and intellectual capacity without following the educational tradition that divides knowledge into school subjects',

We need to have another look at the 'prepared environment' and the various activities that can take place within it. For example, events in the 'kitchen' interest centre. A couple of children are hungry, or simply would like to eat something they have made themselves, do something practical, or prove that they can make a meal without their mothers' help. First they sally into the garden to see if there is anything they could harvest there. They have a look at the plants, and discuss together how long it takes for a carrot or cabbage to grow. When did we sow them:, Have they had enough water?' –a check on the weather graph, to see how much rain there has been this month. Next step is to invent a new recipe for the ingredients they have available, or look one up in a book or the card-index. (If necessary they have to enter what they will need in the school's shopping list for the following day). Then comes measuring, weighing, calculating double or half quantities. Peeling, cutting, frying, or whatever their recipe requires, all offer ample practice in dexterity, hasty to-ing and fro-ing and lively discussion. The cooking time is read out or estimated, and then all the equipment must be washed and put away and the table cleared to make room for the next group. Rubbish goes into 'organic' or 'non-organic' dustbins. When the organic rubbish is composted, it is an excellent opportunity to discuss the advantages and disadvantages of the different kinds of fertilisers. Our children are familiar with the arguments for organic husbandry, and are careful when out not to pollute the countryside with inorganic rubbish.

If bread or cakes are to be baked, the solar oven is tested for temperature, the reflectors adjusted to the height of the sun and the time of day estimated. While the meal cooks, many of the children write down the recipe for their mothers (more and more families seem to be ceding to their children's requests to eat 'a la Pestalozzi') or work out what else they could do during

the time. Then they invite other children, lay the table and set out the plates, while the guests cautiously see whether they are going to like it. The meal is accompanied by much talk and laughter, plans for the future, and finally communal washing-up.

Another practical example of the way a teacher can consciously encourage learning and adventuring without distracting the children from their chosen activity. Here are two children absorbedly moving about the water on the play-table with all sorts of instruments, stirring, splashing, hitting the surface, making the water spurt high, and accompanying their play with much talking and laughing. Nearby, I am helping a child clean the printing cylinders, and almost in passing I ask, 'Can you move the water without touching it?' They look flabbergasted - then one of them laughs and blows vigorously over the surface. Soon other children are drawn to this new occupation and strike up a competition as to who can blow most fiercely - and they talk about wind and the East wind and the West wind and summers by the sea when the waves were so high that they dared not go in. New ideas surface - bellows and bicycle pumps are fetched and the waves rise higher and higher. A few minutes later someone fetches a water pump, then hoses of varying diameter, jugs and straws. A canal is constructed and led over various obstacles. 'Ships are set on it, and their journey timed with the stopwatch. Various groups have formed, and each new step is discussed at length. I ask two older girls, who are watching without doing anything, a fresh question 'Can you move water without touching it with anything, or making it slope, or blowing it?' They try this and that, but must constantly correct themselves 'It's not allowed to slope', 'No, you blew through the straw' - and are as far as ever from a solution when their friend calls out, 'Soup's ready!' One of the girls runs back open-mouthed. 'Look, let me show you - look, it's boiling, it's moving without touching or blowing or sloping!' 'And so it goes on. I ask innocently what it is that moves there and get the wildest conjecture - reply. We look for assistance in books about the sea, which explain about the tides. More memories of the summer. 'Sometimes the tide was right out, and we looked for shells and starfish. At ebb-tide the cars drive along the hard beaches.' (In Ecuador at ebb-tide the beaches are genuinely the best roads). 'Once we watched a car that did not get up off the beach in time and was swallowed up by the tide.' The older children read about the influence of the moon, and make models of the sun, moon and earth and their movements. They play with magnets and try them out with objects of different sizes. We play an 'associative game' - who can write down the most words to do with water in five minutes?

The next day we take all sorts of objects to the swimming-bath and watch them sink. We time the length of time it takes for each one to reach the bottom, and let them down at a deeper place and try out new diving techniques.

On Wednesday the children find a bit: tray of vessels of varying diameter and tape-measures on the table. They ask curiously what these are for, I show them how they can pour a cup of water into the different containers and enter the depths and diameters on a table. This is quite hard for the small children, and they only manage about five entries. The older ones can manage easily, and they learn how to draw a graph showing the relationship of diameters and depths.

On Thursday we go to the river. The children throw stones into the river, see how far they can throw; they paddle, search for tadpoles and algae. They send little 'boats' downstream, talk about rivers in general and this one in particular, and ask in which province their boats will finally reach the sea. Back at school, we fetch out the maps, follow the courses of the rivers, read out the names of the provinces. Many of the children get the urge to 'travel', and reckon out distances (using concrete aids) and petrol prices and lengths of journey. Others draw in the rivers on prepared cards and write in the names, paint in the oceans or make a big picture of seas and rivers, using pictures of the typical fish of Ecuador; others use shells and seaweed to make a collage, and new variations on the theme 'water' continue as long as the children's interest holds.

In all this: the little pieces of assistance, questions and suggestions contributed by the adults, to help maintain the children's interest and to point the way to new possibilities and ways of working, must be dispensed with the greatest care. The children must never be made to feel that their interest is being 'milked' by the teacher for his own inexplicable ends. Children who do not wish to take part in these activities are free to use all the other possibilities available, and their interests are taken just as seriously by the teachers.

Thus to the extent that we are really able to experience each day with the children, our syllabus grows organically from their authentic needs and interests. The central point of the learning is always the child himself, not the teacher or a textbook. We are always careful to ensure that the children's

own activities and experience take precedence over any information the teacher might produce; and instead of waiting longingly for the end of the school day, the 'active school' children always feel that there is never enough time for them to do everything they would like to.

But how can we be sure that they will reach a satisfactory level of general knowledge? When are they taught to unify all these, often unplanned, experiences in a logical whole? How do they learn to make efforts and overcome obstacles?

Perhaps it is hard for us truly to accept that we really cannot explain logical connections to children at this age. Given the right conditions, the brain, as it matures, gradually develops the capacity to digest all experiences made in a positive context so that it can be understood and reapplied in new situations. The active school offers a wide field of observation for this process; and, in sum, we observe daily that children often apply more energy and perseverance to activities that they have themselves chosen than we could possibly expect with those laid upon them by someone else. Children who have been allowed to make their own choices will avoid 'lifeless' ideas which do not connect with their own feeling and experience. For example, the understanding of history can begin with the children themselves. They bring in photographs of themselves at various ages, and make a little exhibition with the pictures in chronological order, accompanied by dates and other details. The 'year dot' is the child's birth, and before this come pictures and entries of other members of the family who were alive before them. This 'family history' leads on to other general lines of times which depict the history of the earth or of great civilizations.

To sharpen this rudimentary sense of history, we bring the children into contact with all sorts of old things and old people. We invite a communicative old grandmother into school, or visit her at home. The old people enjoy telling about their childhood and proudly show off their souvenirs; the children ask questions, look at old photographs, and try and understand what was different in former times. Our hosts may have old books with pictures showing life as it was a century ago. At home the children ask questions of their own families, and then, perhaps, find out about their street - are there old houses in it? When were they built? What is different from houses of today? And in this way the children learn to keep the connection with their own lives as they explore the fascinations of the past.

Using a simple camera, they photograph anything that seems especially interesting at school or on an outing, and are allowed to develop the films in small groups in the nearby darkroom belonging to one of the parents. The best photographs are chosen for an 'exhibition'; the other go in the archive, with all the data, such as day, hour, exposure; that could make them of interest later on.

The excursions offer many contrasts and new impressions. Instead of learning to add and subtract with the aid of pictures in a textbook, they go into actual shops. We ask the owner to allow us to handle the goods, write down the prices and ask questions about manufacturing processes or countries of origin; and in this way the children learn not only arithmetic but also how to interact with many different people, to ask questions, to be polite; and in this (admittedly fairly lengthy) process they store up all sorts of sensory impressions. This way of allowing children to live and grow shows other, quite unexpected, results. One of our friends, a professor of psychology in Norway, who has himself written books about Piaget, recently complained to us in a letter: 'I am getting tired visiting so-called Montessori and Piaget schools and seeing culturally privileged children busy classifying and drawing up lists.' In the worldwide journeys he has latterly undertaken in his capacity of president of a humanitarian foundation he has seen so much misery and backwardness that he now asks, 'Would it not be better to give the children an education that teaches not only logical thought but also compassion'!

But how can we put 'compassion' on the school syllabus? Our experience with the Pestalozzi children, who come from a wide social range, teaches that it is possible simultaneously to encourage both the thinking mind and the human understanding. If we allow the children freedom in the manipulation of material objects, because we wish thereby to encourage their intellectual growth, the children unconsciously absorb our values and pay most attention to mastering the material world. The same freedom to experiment with all types of human relationships, though often hard to recognise as 'school work' is absolutely necessary to the encouragement of social awareness. And, not least, the children will feel quite clearly whether they are being given this freedom in order to sharpen their intellects or out of a deep respect for their authentic needs. It is this respect for their full humanity, which not only wishes to 'develop' the children into logically thinking beings but also accepts them in their immediate childish present,

that is felt by them as love. This same attitude, which makes it possible for us to learn to fulfil their authentic needs, which allows them to retain or rediscover contact with their own feelings, is adopted by the children, who in the same measure that they feel themselves respected and loved, are able to pass on this respect and love to others, to become aware of their needs and to satisfy them.

Last year several groups of children from other schools came to visit us. One was the third class of a private school in Quito. The previous day the Pestalozzi children laid their plans - they were going to cook a bit: lunch for the visitors and show them their favourite books and games. The guests climbed, neatly uniformed and in a tidy crocodile, out of their buses, put their satchels in a corner, sensed freedom and began to run like wild deer through grounds. The hosts tried to invite them to eat and play with them, but it was almost impossible to entice them to the carefully prepared table. As: soon as they had hastily (and with a few grumbles) swallowed something, they left the table without a word of thanks and for the rest of the morning there was no holding them. Our children were disappointed, and wanted to know why the others were 'so peculiar'. On hearing that they usually had to sit still all day at school, our children showed considerable understanding, washed up the thirty extra plates and got on quietly with their own concerns.

Another time we were visited by thirty Indian children. They have little need for extra movement because many of them have miles to run to get to school, but these children flung themselves excitedly upon our equipment and materials. Our children shared out the work - some showed the guests their favourite recipes, and soon the school filled with delicious and heart-warming smells. Others demonstrated their favourite games, and showed how the school print shop worked.

In both these cases we have expressly avoided telling the children how they should behave, assigning roles, or describing the guests; and each time our children adapted spontaneously to the situation as they found it. We left them to draw their own conclusions from the disappointing visit from Quito and their positive experience with the Indian children. We do not believe that one can teach, or force, compassion and humanity. The only way to encourage them is to practise them 'actively', both 'on' and 'with' the children.

For several weeks, our children kept up a close contact with an orphanage. They invited the children to school and paid them several visits. Before each of these most of the projects were concerned with doing something nice for the orphans. They baked biscuits and sold them to friends and relations with 50% profit; they collected outgrown clothes and toys and enjoyed pricing them and working out the total value. We watched carefully for signs of a patronising attitude when the children handed over their gifts, but found none. The visits to the orphanage were the high points of the week; they enjoyed striking up friendships and playing with the toys and pets there. They felt honoured to help the orphans baking bread, and delightedly stoked up the great ovens, kneaded the leaves, and asked whether they might take a small roll home 'so that they can share a little in our lovely morning'. A few of our children who have difficult circumstances at home came back thoughtful. 'Perhaps these children are not so badly off after all? They seem happy here; there are plenty of children to play with, and they do not have to watch their parents quarrelling.'

Where should we set the boundaries of the curriculum when school and life are not separate entities? One of our experiences was totally unplanned and would certainly not be prescribed by any educational authorities. One cool morning we popped into the Zoo in Quito on our way to a museum. This zoo is next to a military academy which has its own riding school. Just as the children were leaving they were magically drawn towards something quite unheard of - an old horse lay, its feet tethered together, on the ground, and a soldier was just putting his rifle to its head. My immediate impulse was to get the children away as quickly as possible. I looked at their faces. Twenty-five pairs of eyes were riveted to horse and soldier in anticipation of what wits to come. Immediately, the shot rang out, and a fountain of blood spurted from the horse's head. It shuddered and jerked and died. At once several soldiers approached with long knives and dismembered it, to throw the meat to the lions and tigers. We could not drag the children away from this: spectacle. Even those who had been frightened now were deeply curious. What did the inside of a horse look like? Were the entrails the same as human ones?' (Some of our children had recently been studying anatomy). We put off our museum visit until another day, and stayed in the Zoo until the last morsel of horse flesh had been consumed. On the way home the children were thoughtful; now and then someone struck up a tune, but there was far less singing than usual. At school the children preserve many impressions from outside in home-made books, printed articles and pictures. However, for the time being many others are only registered in the card-

index for use Later. Short reports dictated by the children, or even written out by us, art: kept in a collection entitled 'Our Life', which is constantly used as reading material. Another index, 'Discoveries' shows the steps taken by the children in their experiments, but without any final conclusions. An arithmetic index preserves the situations at home or at school which have given an opportunity for working with numbers. Cuttings and pictures about all sorts of subjects are stuck onto white paper and short commentary appended, and a simple index points to the relevant folders. In this way a wide range of material on a huge variety of subjects has gradually been built up, and provides the smaller children with interesting reading matter, and the older ones with the basis for little talks or lectures.

As we have seen, the school environment is adapted to the children's changing interests, and an expanding curriculum. The learning process follows a natural rhythm first interest aroused by inner or outer stimuli; long periods of active experimenting; broadening into other fields of knowledge; writing, reading and reckoning in connection with these areas of interest, which have arisen out of the dynamic inter-relationship between children, adults. and the material world. However, the children seldom follow this pattern in exact sequence; most of them devote considerable time and energy to free play which is both constructive and representational - that is, unites the elements arising from the situation within the children. This play flowers most fully when no adult opinion is offered. In 'Imitation, play, Dream', Piaget says that this symbolic play, which even in its earliest forms has an important function in the development of intelligence, has a new and meaningful role in the operational stage (between seven and eleven, after which it gradually disappears). During this time, 'symbolic play changes, with a progressive rapprochement of the symbols to the reality they represent; that is to say, symbol becomes simple picture'.

This rather dry explanation suddenly took on new meaning for me when I read Mike Samuels' book 'Seeing with the Mind's Eye'. This is about the 'inner pictures' which are the natural way of thinking for small children, but in adults are mostly replaced by conceptual thought. They originate in early experiences, when we still had a feeling of oneness with a world which mostly came to us through our senses. Samuels describes the way in which adults can also pay due attention to this world of inner pictures, so that it can become 'meaningful' and 'meaning-giving' for us. If it were still possible for us as adults to live with our inner pictures and to cultivate them carefully, they could assist our personal integration, the safeguarding of our inner lives

and of a meaningful relationship to outer reality. The ability to look within strengthens both our own personality and our connection with the rest of humanity. It makes creative thought possible, gives strength and healing, and helps us when we plan our outer lives.

This pictorial thought is very different from the thinking in concepts which is systematically encouraged in traditional schools. According to Piaget, it is precisely at school age that the inner pictures have the most possibility of harmonising with the outer world; but it is precisely during this period that school discipline forbids all sorts of activities which create the harmony which could strengthen the child and teach him to live in harmony with both the inner and outer world. If he does follow his pictures, they will become fantasies and daydreams if all school activity centres round ideas which have no emotional value and are constantly changing but have yet become, in adult eyes, the most important part of an education.

The active school does not deny the importance of ideas which fulfil a valuable function in adult Life. But it allows the child time to assimilate them in accordance with his own maturing, and this without endangering his ability to visualize. If children Learn in actual situations, with harmonious movements and the full use of all their senses, their inner life will be strengthened and brought into harmony with the world outside. But if we replace actual life with 'copies', illustrations, audio-visual aids, there is a grave danger that the inner pictures, instead of creating a three-dimensional reality in harmony with the five senses, will become unreliable and no longer able to give the inner life sufficient strength.

In Ecuador audio-visual aids are the 'dernier cri' in kindergartens and primary schools. To us they seem an effective way of making children passive and easily influenced. With the onset of the formal operational stage at about thirteen, these aids are certainly helpful in introducing a wealth of information. But for the active primary school, the more deeply we understand it, the more important we consider the contact with the living world.

11: Reading And Writing;

Self-expression and Growth

Few of our visitors fail to be impressed by all the new possibilities and perspectives offered by an open education based upon respect and upon going with the children's natures instead of fighting them. Most admire the materials available to the children and are pleased by the atmosphere amongst them and the adults. But eventually most of them voice concern: 'We have heard that your children do not learn to read and write. Certainly we realize that this is not part of kindergarten teaching, but we hear that it is not compulsory in the primary school either. What do you do if they never learn if they still cannot read or write at twelve'!

Such anxieties form the basis of the conviction that the teaching of reading and writing (and of course arithmetic, but we shall cover that in the next chapter) is the most important task of any school; and that in addition they should be learnt by everyone at the same pace and the same age, by means of extensive and systematic exercises which will also teach the children 'to take life seriously'. In the course of instruction it is supposed to be possible for adults to distinguish the gifted and ungifted, and thus estimate which children will later be suited for higher education. In other words, we all associate a similar picture with the word 'school' - tidy rows of chairs and tables (in more modern schools perhaps broken up into groups), with the children busily bent over their books, spending several hours a day reading and writing. Now and again they raise an enquiring glance to the blackboard, or the dictating teacher. In Ecuador many hours are spent in taking dictation, right up to the highest classes, or looking in a book. These children have to write thousands of words, sentences, pages, before they are admitted to civilised society. No-one asks whether they will spend much time or energy on writing in adult life: - many adults read and write only a fraction of the amount they were forced to plough through at school.

Is this systematic filling of exercise books really the best way to introduce children to the world of the written word? For a while educators have been suggesting that we should reduce this exhausting and deadening work, but there follows immediately a fresh wave of counter-reaction - 'back to the essentials' - when a few years' unexposed intake reaches tertiary education without a solid grounding in orthography and grammar.

In 'Compulsory Miseducation', Paul Goodman speculates that In our civilization, which has the written word on public show everywhere, any reasonably intelligent person, even without a formal introduction to the

mysteries of the alphabet, would sooner or later be able to decipher written texts. In his little 'Methode naturelle de lecture' Celestin Freinet describes, with great empathy, the beginning steps and progress of a child who spontaneously, from a wish to acclimatise to his environment, gradually learns, almost unaided, to read and write, innocently using the same mechanisms as he used to learn to speak or to walk - that is, his need to move, to imitate, to express himself and increasingly to develop possible methods of human interchange. And just as in these skills, which every small child acquires without resorting to a 'method', it is constant experiment, comparison and self-correction that makes progress possible. The child is constantly looking for new models to imitate, and where necessary he asks for help. How joyously a small child 'paints' on the table with his food and drink. Sponges, colours, anything that can be smeared around, awake his wish to 'write'. How lucky he is if the adults allow all this and present him with fresh opportunity for this first spontaneous expression, which brings him so much happiness. If only these small children could rely on the support of those around them, without having their confidence, to make mistakes and go on experimenting, sapped by praise and criticism, impatient correction or perpetual instruction, then at school age they would bring to writing the same concentration and delight as do the little 'mucky pups' who fearlessly cover any surface with any material not already expressly forbidden!

At about four or five a child will naturally begin to write his first letters and then words, showing great interest in anything written, and copying words, and even sentences, with considerable perseverance. He wants to write 'proper letters', and will dictate long epistles, too long for him to copy out. All this is the spontaneous expression of the growing organism, which naturally assimilates the elements of its surroundings in the way appropriate to its age and stage, and up to at least the age of seven always seeks out new forms of moving, of emotion and of sensory awareness. But the adult assesses this first love of the written word in his own (egocentric) way, because he is ignorant of the child's inner criteria. He attempts to ascribe an 'intellectual' value to it, and tries to guide the child according to his own lights. Many children, who gain full attention and recognition from their parents only when they do something 'intellectual', find early reading and writing and adaptation to adult logic an infallible method for evoking the love that is so necessary for their growth.

However, if we follow the child's own learning rhythm, we may well be surprised. At the age of five - that is, at the time when children usually start school and have to settle down seriously and methodically to reading and writing - children in the open system often show a Lessening of interest and perseverance in writing. Instead of constantly drawing letters, previously the expression of their inner self they often begin to show a wish for experiment at a new level, and begin to handle what can be measured and counted. This is easy to understand when we are aware that the six-year-old is in transition to 'operational stage' of his development. Just like a child who is learning to walk, who concentrates all his energies upon this new task and appears to make little or no progress with any other, the six-year-old temporarily loses his interest in the more delicate types of movement and devotes himself to the discovery of new connections that lead him to a higher degree of general understanding.

But no two children develop in the same way, and it is particularly in these transitional phases that the open system offers constant opportunity for language development without teaching everyone in the same way at the same time. At about six-and-a-half years, those who have taken this spontaneous holiday from writing acquire a new and intensive interest in it, and learn almost overnight what for others: has needed a long steady process. Our own son, for example, was at one point unable to write without a copying sheet. In the following week he was writing long letters and essays, with which nobody was allowed to help. But however this process goes forward, in keeping with the nature of each individual, the most important thing is to avoid turning anyone into an early 'failure', as result of instructing him too early and under the wrong conditions. Before start to describe some ways and means through which children can learn to read and write, I should like once more to stress two basic differences between the active school and the traditional primary school. In our contemporary society, which offers ever less opportunity for children to be active in the true sense - whether through safe free play or through taking part in the life and work of the society in which they are growing up the active school accepts the responsibility, not only to impart knowledge and skills, but also to make a space for the children in which, without risk of objection, disturbance or danger, they can be active and responsible. This is especially important for town children, who live in restricted spaces and usually cannot safely go out and explore or meet their friends by themselves; in addition, their parents often have jobs that are incomprehensible to the children, and many families move house so often that there is no possibility of a

community feeling. For country children, on the other hand, it is Important that we give them an educational experience that does not cut them off and alienate them from their daily life. School ought to confirm them in their own experience and show them how, without sacrificing their cultural values, they can gradually transform concrete experience into abstraction and symbol. 'This is the only way in which we can prevent their feeling interior to the smartly-dressed city-dwellers, or later turning their backs upon their origins: and moving into the town. The active school hopes to be a place that helps people come to terms with their own experience, and that, if necessary, helps fill in experiences that have been missed out.

In this manner it invites everyone, teachers and pupils alike, not to tread a well-worn straight path to the acquisition of knowledge and skills, but to discover many different paths for themselves. This method may seem a waste of time and energy to anyone whose sole aim is to cover the maximum material in the minimum time; but it has two advantages. On the one hand it encourages the children's natural creativity, and on the other it constantly reawakens their curiosity and urge to discover, without dulling them by a repetition of what the teacher knew perfectly well all the time.

We find both these aspects in the way that the active school tackles the problem of language. We see school as a space in which the child can live each day- to the full; and in this space the spoken and written word has a place of honour. It should not be an object for exercises and drills, but, as an important element of a language-conscious culture, should be highly regarded, indeed celebrated. All the multitudinous activities which make the children so happy are made more accessible and meaningful by language. But there is never any doubt that reality, actions, personal interests and feelings, comes first; that language must stand in the right relationship to it, and that speech without action is not highly esteemed. If a child just stands around and talks without doing anything, the reaction is not long in coming: 'Why are you talking so much and not doing anything? Take a knife and help us peel the potatoes. We can always go on talking at the same time.' Tangible activity, especially at this age, guarantees the right relationship between speech and reality. For this reason we take considerable notice of the spontaneous talk that naturally accompanies all activities in children of all ages. We are constantly struck by the high proportion of egocentric expression that becomes genuine dialogue or discussion simply by the free interaction of children together. This is 'free oral expression', not a guilty whisper behind the hand, or a question-and-answer dialogue with an adult, in

which it is important either to come up with the right answer, or to avoid embarrassment by saying nothing at all.

For what is the point of a child's expressing himself in writing if he cannot feel free in normal conversation? If children's writing is to be alive and not a pastiche of what they have heard or read, we must not stifle the liveliness of their talk. But this is precisely what happens if the teacher, who is the most practised speaker, has the most right to be heard in the classroom.

In the previous chapter we found that the same material is common to many disciplines, and that subjects do not need to be separated off from each other by bells and a change of books. If we want to attain reading and writing, we need, besides a little technical assistance, above all valid experiences - things that really interest us, human contacts that give us warmth and call it out from us. This is how our learning will be meaningful, and we will experience the personal involvement which motivates us to the complicated act of writing and helps us overcome the difficulties. This is an important principle for adults; how much more so for children, whose healthy growth depends entirely upon harmony with their feelings.

There are so many possibilities of uniting reality with its symbol, the written word, in an active school. Here are a few examples. Initially it is the teachers, later the children themselves, who see to it that the written word is omnipresent and 'leaps out' at everyone from the various interest centres. Big signs, notices, posters are constantly renewed or changed. For example:

By the water table - 'Please wear overalls', or 'Who can fill a bottle without spilling it?'

At the sand table - 'Here we play with sand', and 'Please do not throw sand at anyone's face.'

In the kitchen - 'When you cook here please clear up afterwards. '

In the print shop - 'Careful! Here all the lies get printed.'

In the indoor garden - 'Please water the plants.'

On the nature table - 'We brought these stones back from Rio San Pedro.'

On the animal cages - 'Open with care. 'The dog likes rabbits to eat.

These signs are everywhere, in colourful felt pen, impossible to overlook, and it is not long before the children start making their own. Some of the interest centres are particularly suitable - in the kitchen it is the recipe box with its simple instructions. The experiment corner has its own suggestion box, as does the weighing and measuring centre.

'How many marbles balance a cup of rice? Estimate first.'

'Which is heavier, the big magnet or a cup of water?'

'How long are all the tables put together''

The possibilities are obviously unlimited.

Every centre sports its name - for example 'Arithmetic Centre'. Next to it is a list of all the objects that are kept on its shelves. Each object is also labelled - perfect comparison material for beginners in reading. Game rules are clearly written out on all the boxed games, and there are suggestions in every possible space - the sewing corner, the workshop, the tool cupboard, the craft corner. We regularly make out shopping lists for the kitchen, and they stay up until the things have been bought. Then there are lists with the names of the children who have formed various work groups. On the cork-covered sides of tile shelves hang photographs with their descriptions, interesting newspaper cuttings, publications from the school print shop, notices about outings, news items from the children, and letters from outside.

Long before a child is ready to use teaching materials or read books: the written word comes at him from all sides. Naturally the library, with the reading corner, has a particular role. It is a pleasant place, furnished with soft cushions, rugs and a low coffee table upon which newspapers, magazines, football results, comics and puzzle books lie ready to hand. The bookcases also serve as room dividers, and lend a feeling of privacy to the homely sitting area. There are books for every taste and every level of ability, arranged in languages: fairy tales, true stories, adventures, reference books, dictionaries, text-books covering all subjects, encyclopaedias, and homemade books in three languages. This reading corner is rarely empty. Besides reading, it is useful for rest and relaxation when a child is tired or

staving off' flu, quiet listening to music or stories, comfortably leafing through books which are as yet too difficult to read, and, not least, a meeting-place for friends. If a child wants to read something aloud to an adult he will ask one of us into this pleasant corner. There we sit, somewhat squashed, with arms round our knees. and listen to each other read aloud. With the beginners we read alternate sentences; later the units are paragraphs or pages. In this way the pace of the story is kept up, no-one gets tired, and gradually the children unconsciously adopt our speech rhythms and arrive naturally at a flowing and expressive delivery.

A large shelf houses plenty of teaching material, mostly Montessori aids to writing, reading, and grammar. Here too, three languages are represented. Although the German and English speaking children sooner or later learn to read and write Spanish without too much difficulty, it seems important to us that at the start each child should be working in his mother tongue. The introductory reading and writing materials are already on hand in the kindergarten, but many children are glad of the 'sand-paper letters' which they can use if they are not too sure of how to write an individual character. These letters are also useful for amusing games and a prelude to the print shop. The language shelves are richly equipped with boxes of small objects suitable for beginners in reading and writing - word and sentence cards with illustrations, commando cards, syllable bricks, essay subjects, words and sentences to arrange according to many different levels as far as sentence analysis.

Next to these shelves is the school printing press. Following Freinet's example, we use it as a means of learning writing and reading, and in many other ways. The happier children feel with writing, the more the printing-press can help extend their powers of expression (and simultaneously their spelling). They learn to go on working at an essay, a poem or a poster until they are satisfied it is 'fit to print'. At an age in which curiosity in many directions lessens their interest in good handwriting and correct spacing, the printing press" brings them repeatedly back to the necessary for attractive presentation. Typesetting. printing, drying, sorting, binding and distributing give them renewed contact with tangible things, opportunities for working together, responsibility, and the need to organize themselves and their work. Books by Freinet and Hans Jong give plenty of suggestions for the various possibilities opened up to children by a school press. Our own two years of experience with this excellent instrument show that its importance in the active school is slightly different from that in the traditional one. We have

many other opportunities for freedom of movement, co-operation, discussion with friends;, handling tangible materials, and creativity, so it is not surprising if our press is not so avidly sought after as in schools where it presents the only possibility for these activities. We often have two or three weeks in which no-one uses the press because all energies are concentrated upon new discoveries. But it comes into its own when the children then want to preserve the new experiences in writing and in print. We think it Important to allow the children this freedom, and thoroughly enjoy the fresh and original texts which arise spontaneously in this way. Some translations from the Spanish, (here re-translated from Rebeca's German), of our archives bear witness to our children's interest in writing.

From a seven-year-old:-

PLEASE DON'T GO

Please don't go

I have to stay behind

I'm sad because you are going

I cannot go to sleep without you

Stay with me, I'm afraid of the dark

Please don't go.

Here an eight year old gives vent to his feelings:

FEAR

The whole city has goose pimples

At midnight the great ghost climbs out of the coffin

We pull the covers over our heads

The ghost wants to frighten us

It changes into a bat

And goes to seek a victim

Its sharp teeth bite into the neck veins

I shut the window

And bury my face in my pillow.

Vinicio, our young teacher, had been romping with the children in the swimming-baths. When they came back this appeared for the press:

COMPLAINT ABOUT VINICIO

Wait till we catch you!

We'll pay you back a thousand times

For what you've done.

Listen to our complaints!

Vinicio threw my shoe in the water.

Vinicio pushed me into the water

Just as I was getting warm in the sun

Vinicio ducked me.

Vinicio took my towel.

Vinicio sat by the window in the bus instead of me.

Vinicio, what is to become of you?

Here is an echo from the kitchen:

WHAT WE EAT

Veronica eats everything,

Carolina only eats pancakes,

Alba eats chips all day,

Tania eats strawberry jam.

Florencia makes chocolate spread

Out of margarine, cocoa and sugar.

But nobody except her will eat it.

Carmen eats vegetarian food.

When we are all together we eat

Potato soup with a beaten egg in it and

Lots of parsley out of the garden.

And here is an extract from the story of an outing:

THE TUNNEL

We took torches.

Luckily we had strong shoes on

For the way down was full of scree

The quickest ones got to the tunnel first.

We turned on our torches

And went along the track through the tunnel.

Good thing that there are no more trains there,

Or we would all be dead!

In one alcove we found Atahualpal's ribs

And in another a prehistoric spear.

We turned the torches off

And jumped out on our friends at the back.

How they screamed!

The essays and poems pile up in our archive. First we leave them on the blackboard for a while so that the children can read and re-read them. Each child puts a copy of each printed piece into his loose-leaf book, and in this way we build up a reading book that mirrors: our life together and is full of memories for each one. The children take it proudly home and after all the reading aloud they know it almost by heart. On the last day of term, when everyone's sole thought is 'holidays', three children printed and distributed these lines:

LAST DAY OF TERM

Only a few hours more to be together,

Only a few hours more to play together

A few hours more to cook something good

And eat it together.

A few hours more to learn something new.

A few hours more to tell of our adventures.

Why do the holidays come so soon

I thing we will miss each other very much.

In one German language textbook for eight-year-olds I found a page entitled, 'Thinking about language'. It featured two stories, and the children were supposed to think about the different ways in which each used language. When we think how high the proportion of egocentric speech is at this age and how small the ability to reflect, we can well imagine that an exercise like this will have to be guided by the teacher, with the children sitting at their books and the teacher posing well-slanted questions which cleverly lead the children to falling with his own point of view within the given little.

In the same book we find a work unit which is intended to guide the children in critical analysis of opinions. On a beautifully laid out page we find twenty or so contradictory opinions, a colourful collection of sayings about sport, health, character traits, negroes, Chinese, generation-gap problems, teachers, pupils, red-haired and black-haired people, furniture, traffic. One group of pupils is supposed to pick out the opinions they agree with, the other the opinions with which they disagree. Any that are chosen by both groups come up for discussion, and the idea is that the children should try and convert each other to their own point of view by the use of reasoning and examples, and thereby learn about prejudice, logical argument and relevant examples. It is even suggested that they make use of the given examples for the detection of parts of speech, for instance adjectives....

These children at the start of their operational stage, who should be developing their logical thought structures by interacting with tangible objects and actual situations for the next five or six years - can we really hope to educate their powers of thought by exercises in speaking and discussing? Do these requirements from teachers and textbooks really correspond to the spontaneous interests and logic of the children at whom they are directed? Our 'theoretical' knowledge of child development tells us that in the operational stage the child only occasionally, and intuitively, comes to grips with causality, finality or reversal, and becomes confused when a problem presents more than two or three strands and, in addition, lies outside present personal experience. Perhaps we have seen in practice that clever children often adapt to our adult ideas with astonishing dexterity. But we also know the price that they have to pay - a certain emotional insecurity and a rebellion that becomes overt at puberty. And there is a great army of children who cannot adapt in this way, and have to live with the feeling that it is their fault.

The active school does not use logical debate in its language teaching, unless it arises spontaneously, and emphasizes actions which naturally lead to clear consequences. The ability to reflect grows gradually from the experience of many actual situations. The pressure of actuality gradually forces the child to abandon his egocentricity of thought, and to begin to become aware of various standpoints and not only of his own needs - if I leave the table dirty have no right to complain about others doing the same; if I say something nasty about another child it will not be long before someone says something about me. Even the smallest children learn that a bottle overflows if they pour too much water in, and that if they fail to look where they are going with a full tray the results can be unpleasant. Life shows its 'flip-side' very quickly when people are closely interacting, and the need to think first becomes self-evident. Instead of thinking about language (what adult actually does this?) the children learn to think about life.

Language teaching happens, then, amid reality. The first books, made by the beginners themselves, are picture books which reflect their world and their experience. They dictate the text to a teacher or an older child, and go over it with crayons. The library has a large collection of such books 'We Go Swimming', 'Our Sandpit', 'Outing to the River Chiche', 'Our Animals', 'Carolina's Birthday Party', 'Grown-ups' a whole series written and illustrated by the children themselves.

The older children produce a newspaper - 'Pestalozzi News' - made by the children, sometimes with help from the teachers, reporting on the most interesting (to them) events of the week. 'The rice burned. It took a long time to get the pan clean again. "An enormous spider spun her web from one pillar to the next. We fetched the ladders, and looked at her with a magnifying glass. Then we looked all over the grounds for a suitable husband for her. But the other spider did not want to stay up there.' 'It was Ladna's birthday, and her mother sent in a big chocolate cake. We cut it carefully into thirty, to be quite fair, but there were still three pieces left over and we had to divide them into thirty tiny pieces. It was a nice party and everyone made Ladna a picture to celebrate her eighth birthday.' These news-sheets are hung up in the library, which then looks a little like an old-fashioned Viennese cafe.

The whole atmosphere in the active school is such as to inspire trust from even the shyest child for how is a child to open up, to express his thoughts

and feelings, without this basis trust? When he writes his first texts we do not correct the mistakes, even though adults usually believe that a child will always write and spell wrongly if we do not correct him from the very beginning. In this they under-estimate human intelligence and the inborn urge to measure oneself against reality as soon as one is able. 'Fluency before exactitude' - this basic principle applies to learning to write. If a child brings me an essay to read, I ask whether he wants me to help him correct the mistakes. If he says 'No', we leave it at that. If 'Yes' I make a little card with the correct spelling for each mistake, and there ensues a piece of detection matching them up.

Mistakes have to be corrected, however, before anything is printed. We have plenty of homemade books, and cards to help the children with their spelling. There is also a box in the Freinet card index. On days when the children 'have nothing better to do' they enjoy writing for its own sake, and ask aloud 'How do you spell...' - to be answered by anyone who knows. Sometimes the adults pretend not to know and we look it up together in the dictionary.

The children do not always have original ideas for 'free composition': and 'Write whatever you like' does not automatically produce an inspired piece. The link with other branches, including arithmetic, often leads more directly to articulate expression than 'language for its own sake'. A constantly renewed supply of helpful materials helps the children find ideas. For example, the children's first names on a card and their surnames on a differently coloured one, with suggestions - 'Which name belongs: to which surname?' 'Write down what each child looks like - size, eye colour, hair colour, etc.' 'Ask some children what their parents are called, when they were born, which illnesses they have had, what they like best to eat, what is their favourite game, etc.' From these little games of writing and reporting it is only a step to statistics, graphs, and similar activities which have little to do with 'language'.

Several cards with similarities and differences to be listed lead to organized and logical list-making, as does the Montessori grammatical material. Sometimes the children simply feel like 'copying something', a story, poem, song, the most exotic animal names from the encyclopaedia, the countries with the strangest names, and similar exercises, which may only be copying but require a high degree of concentration, which is achieved because the exercise is purely voluntary.

The stopwatch is a favourite in many of our thought and language games. 'Who can write down the most words in five minutes?' or the most words connected with foods, traffic, water, school? Things that one can smell? Sentences to shorten or to lengthen, adjectives to find, a dictation to be put into the past or the future at first hearing, a story to finish or a beginning to find an ending, essay themes to pick out of a hat, pictures to describe, poems to write' - ideas that are also found elsewhere, but have another flavour in the active school. Here the children can say 'No'. 'I don't want to do that today, I'd rather make a cookbook for my mother's birthday.' And the book is lovingly put together, while ten other children play a word-association game with equal enjoyment. Older and younger mingle, the older writing thirty words in five minutes, and the little ones six. The older praise the little ones - 'You can write fast!' Scrabble, word-lotto and similar games also attract children of different ages, and in this way competitive games become family games, and the most important part is not winning and losing, but having an enjoyable time together.

With reading, too, we have the same aim. What I do for pleasure today will be my enjoyable habit tomorrow. Alba, who could not sit still for five minutes learnt to read from action cards. After each card was shown she jumped up and did whatever was on it. At that stage, if we asked her to read even a tiny book she manifested a nervous tie, and gazed longingly out of the window.

There is also a big basket with an ever-hanging collection of folded slips held together with paper-clips. The children fish them out with a 'fishing rod', a stick with a magnet attached to it, and consider whether they feel like doing what the slips suggest:- 'Feed the rabbits', 'Build a sandcastle', 'Record sounds on tape'. If they like the suggestion, they carry it out.

Children make unexpected progress with their reading when they find texts that really interest them. One little football fanatic read nothing but football literature for a whole year before he slowly broadened his horizon. But thanks to his genuine interest he had learnt to read really well.

Maria Belen came to us at the age of ten. Her mother had attended one of our adult courses, and then been able to detect the signs of school phobia in her daughter, even though her school results were good. For instance, Maria Belen actively disliked reading; she began to sweat and her voice would

tremble whenever she was placed before an open book. When I, in all innocence, asked her to find the longest words in a story, she immediately started a nose-bleed. I tried for months to remove her fear of reading. We sat together with my arm round her shoulders, and read in turn, because after only a few words she would get in a complete muddle and not understand anything. In addition, the books she would bring to me were mostly very uninteresting - boring textbooks, or treatises and suchlike. I could not get her to try an interesting book or a funny one; she seemed absolutely convinced that reading had to be terrible. After one such tortured attempt at 'Basic foods', I asked her whether she had really found that interesting. She looked at me in astonishment and said 'No.' 'Then why do you want to read it?' And she burst out laughing. But the 'breakthrough' came when I bought a sex-education book for young people, and left it under a pile of other books. It was Maria Belen who found it first - exactly as I had hoped, because I had felt that she was a prim little girl who would not dare to exhibit any curiosity. She settled down in the library with the excellently illustrated and explained book, and in half an hour she had read it from cover to cover. Then she called her friends in and read them extracts. There was a conspiratorial atmosphere - giggles, little cries, loud discussions and exhortations to keep quiet, as the book was passed from hand to hand. Suddenly Maria Belen saw me in the distance and come running. 'Just think! I've read a whole book! But does that count as Reading?' She still could not believe that reading could lead to the discovery of new worlds, and to considerable pleasure! From that day on she would seek out interesting books in the library and regularly borrowed them to read at home and her mother's complaint now was: 'Maria Belen won't go to sleep at night. She reads with a torch under the bedcovers.'

Writing and receiving letters is one of the best ways of arousing, and maintaining, a spontaneous interest in reading and writing. We have long been looking for a suitable group in Ecuador, a group of children who could regularly, as a group and as individuals, exchange letters with our children. But in the school this kind of correspondence is frowned upon as a waste of time, because the teachers have all they can do to impart the syllabus; and at home the children do not wish to write, after having had to do it all morning. So we have been looking further afield, to find a group abroad who will exchange not only letters, but photographs and paintings. and pictures of their country. so as to bring geography and social studies alive for all.

An active school full of illiterates? I believe there is little danger, even if many of our children postpone reading and writing to the age of seven or eight because they have more important problems to solve first. Language should, after all, be the expression of life – so of what use is it to the children to speak and write beautifully when this has very little to do with their own experience of life?

In this chapter I have only been able to sketch briefly the way we in Tumbaco approach the problem of language teaching. Besides the books of Montessori and Freinet, still worth a close study, I would like to recommend warmly two other authors who offer many fruitful ideas on this subject - Herbert Kohl and John Holt, in whose latest book 'What do I do Monday?' the interested reader can find a wealth of usable and adaptable ideas for the Living teaching of language. We agree with these authors that there is no single true method, and that we must give children the opportunity to develop their own life-style and with it their own use of language.

12: Arithmetic for Pleasure

As I set about preparing the main lines of this chapter I felt a familiar discomfort in my stomach, long an infallible sign that I am about to tackle things that have once caused me unhappiness, or problems which I have not yet solved. When I took a little time to follow up these feelings, old memories and pictures from the past arose to confront me, such as these two long-forgotten scenes:

I am sitting at my childhood breakfast table. The bread and jam refuses to go down. The coffee smells horrible. I leaf nervously through a book of formulae, not knowing what I am looking for. Today we have Maths.

As the bell goes I am standing with my friends in the classroom. We are all nervous, and promise to 'keep our fingers crossed' for each other. The teacher comes in and we all go resignedly to our seats. While the much-feared sheets with those fateful questions - three different ones, so that no one can copy from his neighbour - are given out, my stomach contracts into a horrible knot, with my undigested breakfast protesting inside it. For a couple of precious minutes the numbers and signs on the paper dance their own satanic jig, and I cannot tell whether the questions are easy or hard.

Then I pull myself together and try to decide where to begin. Here my memory blanks out. A couple of hours later the bell rings, and I lay my work on the edge of the desk. The teacher, with the face of a hanging judge, goes along the rows and collects the papers (in order, just in case anyone has after all been copying). As he reaches for mine I feel the same cramping in my stomach. A week later he enters the room with his horrible folder, and we all turn inwardly to ice, casting each other meaningful glances, except for a few brave souls who act as though it is nothing to do with them. We all know what is coming - a lengthy sermon about 'people who have inexplicably been allowed into this class' and 'people who are not usually stupid but had bad luck this time', followed by 'people who really give no cause for optimism but were lucky this time round', and so on, followed by the worst of all.... 'Once you get your work back you will only care about your marks; so I shall first write out the problems step by step on the board, so that you can see how it should be done, and not need to ask me afterwards'.

Every answer knots my stomach a little more tightly. With the best will in the world, I have no idea what answer I put last week and am quite certain that I must have done everything wrong. Towards the end of the lesson the exercises are given back in descending order. Sighs of relief from the first few (but 'Don't let it go to your heads! The school year has a long way to go!') while everyone else waits in a stew of anxiety until the final 'Just what I expected'.

However did I manage to stay somewhere in the middle of the class, and even to get an unexpected 'A' in the final exams?

I still remember waking up years later with nightmares that I was sitting a mathematics exam and could not remember what to do. All these twenty-five-year-old memories are meticulously stored in my body, and it was not until I came to Ecuador that I realized that it could be pleasurable to play with numbers, when I learnt from the Chinese, our most successful restaurateurs and shopkeepers here on the coast, how to use an abacus. We used to spend long jungle evenings working up our speed, and later tried ourselves out against an electronic calculator. Since then I have begun to lose my fear of figures, and really enjoy starting again with the Pestalozzi children, discovering the pleasure of combining, sorting, ordering, comparing, shaping, estimating, finding out symbols. We count and reckon and make friends with numbers as though they are part of the family.

All these activities are quite natural to small children and form part of their favourite occupations long before it occurs to anyone to call them 'arithmetic'.

Each movement of the body in time and space, every game using material objects, all participation in family life, and every relationship with people, animals or things is really an early form of mathematics. But when we its: well-meaning adults take the instruction in hand, there is: a danger of interrupting the natural flow of the child's thought and activity, and of the child's adapting to the abstract mode of adult thought, and acrobatically 'jumping over' many of his own natural developmental phases, in the effort to follow our explanations, fulfil our expectations and demonstrate his intelligence. These contortions give rise in many children to unconscious fear, so that as adults, when in contact with mathematical concepts, some feel nervous as though they were on a precarious tightrope, and others enjoy a superior feeling of being lifted above the hard reality of everyday life.

This type of arithmetic teaching, that leads children on to abstract thought before they are ready for it, can be a critical factor in the alienation of an individual from reality. In the first school years thought and feeling are still one, and could remain so for ever if they are not artificially driven apart. Concepts that could be derived step by step from meaningful sensory connections and living experience are robbed of their value and become all too easily susceptible to manipulation by a precipitate shortening of the process, becoming purely utilitarian and foregoing the weight of meaning that contributes to inner and outer balance.

We know from Piaget that the child's capacity for abstraction develops far later than is usually supposed. Children's natural adaptability to existing circumstances, and the possibility of their concealing a lack of true understanding by clever imitation, guess-work and learning by heart, has often concealed this fact. But in working with abstract numbers and relationships, these devices do not serve as well as in other subjects; so it is little wonder that many normal, intelligent children quite early come to the conclusion that they are 'no good at arithmetic '.

I know of no child in the Pestalozzi school (except a few when they had just arrived from another school) who was afraid of arithmetic. The active school simply assumes that every healthy child has more than enough ability to deal with numbers, but needs a very long period with concrete materials before,

as the natural result of his organic maturity and experience with materials, he is ready for abstract thought. We are often asked by worried parents, 'How do we know whether they will ever be able to work anything out without the materials?' In practice there is no problem. When a child no longer wants to fetch down everything from the shelves and spread it out on the table, but prefers to try and work things out on paper or in his head - that is the time to help him do it. As long as a child obviously still enjoys all the moving around, setting things out, feeling them, admiring them, and revelling in the fresh discovery through changing parallel materials, of similarities and differences and the enjoyment of the beauty of the patterns, it would be a dreadful shame to deprive him of all this and restrict him to pencil and paper. How flat and monochrome the pages are in comparison to the mountains of material in an active school!

But although we do not lead our children on to abstract thought-at the earliest possible opportunity, we by no means omit arithmetic from their Learning. On the contrary, the children find themselves invited to counting and arithmetical activities at every step, and this comes about not through frequent use of our well-equipped arithmetic centre, but in the course of their practical activities, the playful interaction of their energetic little bodies with an environment that encourages them to move. All these elements are never separated but form the natural complement to each other.

An American handbook states that for the successful progress of arithmetic-teaching, the following things should have been 'taught' before the child reaches six – sizes and shapes (big, small, tall, short, straight, crooked, etc.), length, distance, content, quantity, comparisons, definitions of place, time and speed, money, descriptions of what is seen and heard and numbers up to ten. How are these to be taught if not by the child's own activity, reinforced by the free flow of verbal description! At the water table or in the sandpit, at concentrated play with all sorts of containers; in the kitchen, weighing, measuring, counting, comparing, shaking and stirring, talking and fetching; laying tables and sharing out food; in the garden, measuring the beds, drawing a furrow, sowing seeds, transplanting, watering, writing down dates and waiting for 'harvest time'; in the workshop measuring and mitring; in the printing press, counting out letters and printed sheets, cutting up the paper, preparing the colour, and all the organization demanded by the printing process; in all their craft work, cutting, dividing up surfaces, ruling lines, folding, decorating, mixing, kneading and shaping. All these activities, which come so naturally to children and make them into happy, balanced

people, include not only multifarious sensory experiences and energetic movements but also the basic processes of arithmetic. In each of these activities, only a small step, a little push, and a little help, are needed to bring the children on to 'proper arithmetic' and to introduce them in the pleasantest possible way to addition and subtraction, multiplication and division, area, volume and all those other bogeymen of our own youth. Perhaps they are cooking for four people; some other children arrive, and we ask helpfully, 'Couldn't you cook double the quantity?' The calculations begin, and finally all the ingredients are doubled.

Before we go shopping for the school kitchen, we use our list to make an estimate of about how much money we are likely to need. A child fetches a little more than this from the office and writes a receipt for it. Then a small group goes to the village to shop. They all check whether the prices have gone up, and make sure that there are no mistakes in the shopkeeper's account. They then divide the goods, so that no one has too much to carry. When they return, everything is weighed again, and the prices re-checked. Finally the money is all added up. Some try with paper and pencil, and are quick but possibly wrong. Others use the abacus, which takes a little longer, and come to the same result. How far out are they? Does the sum match with the original money and the change? The final amount is entered in the account book and reckoned with the secretary, who exchanges the original receipt for the till receipt and the change.

At the end of the month there is another reckoning. Have we kept to our 'budget') The month's expenses are compared with those of earlier months, and conversation runs upon the cost of living, inflation, and other contemporary problems. The children develop a feeling as to whether, in the middle of the month, they are about halfway through the budget, whether they can spend a little more or whether they should economise. They talk about expensive and cheap foods. In the shops they ask for 'the cheapest cheese', like experienced housewives, and arrange in South American fashion for 'a little extra' when it is a question of onions or tomatoes.

At the end of the past school year they composed a petition for a rise in the kitchen budget:

Dear Headmaster Mauricio,

Food is getting much more expensive, This month prices rose by 10%. Soon we will no longer be able to bake cakes. Don't you agree this is bad? If you do, please give us some more money for the kitchen.

If the children want to have a party, and the kitchen no longer has enough money, they agree that each should bring something from home. There is much discussion, suggestion, rejection and debate. It is a real-life problem and its consequences affect everybody. Ideas like gramme, pound, different weights and sizes, litres, gallons, become familiar to all the children.

These first steps in practical arithmetic are accessible to everyone. The Little ones prick up their ears as the older ones talk. Everyone wants to be able to write figures legibly so as to be able to take part in the budgeting. The ability to handle figures is seen as a natural function of the human intelligence, and normal flow of life is not interrupted. The weekly homework also includes exercises in practical arithmetic. The little ones are asked to count doors and windows, items of furniture and clothing, cups and plates and other household articles, light bulbs, sockets. They draw round the family's hands and feet, ask the age of friends and relatives, measure the volume of saucepans and bathtub with litre measuring jugs, and find out which are the longest, shortest, highest or lowest objects. The possibilities are unlimited, and with a little imagination the home becomes an inexhaustible arithmetic centre.

The older children use shopping lists and differences in ages; they measure people, distances and objects with standard measuring tools. They add things up, find out about prices in shops and travel bureaux, count the number of cars and pedestrians within a given time, make graphs about various things, and reckon up surfaces, room volume, averages and percentages. Everything that happens or is used at home can be of use for arithmetic. Helpful parents sometimes send in the homemade cards that portray the 'living arithmetic' of a family, and these can then be used again by other children. There are many such examples in Celestin Freinet's pleasant little 'L'enseignement du calcul', and anyone working with 'active children' will easily be able to invest more.

Arithmetic is by nature omnipresent in all movement. Races, high and long jumping, swimming, ball games, trials of strength, all the activities we designate simply as 'Sport', become an exciting arithmetic lesson when we allow the children to measure the field themselves, and equip them with measuring sticks, stopwatches, pencil and paper.

The most comprehensive presentation of ideas for connecting arithmetic with children's need for movement that I know of appears in John Holt's 'What do I do Monday?'. He shows that children of all ages can learn to handle lengths, height, speeds, lengths of time, achievement graphs, heart activity, breathing, weights, conversion of lengths and time spans, estimates and comparisons of all grades of difficulty, without ever having to sit at a desk for more than ten minutes at a time. I recommend this book most pressing to any teacher who is still convinced that sitting still and keeping quiet are essential to the study of arithmetic.

For the less active, or the out-of-breath, there is no lack of games which require little physical strength. Shuffle-boards with small and large numbers are good practice both for purposeful aim and for reckoning plus and minus points. They can be made in different grades, for practice with low or higher figures. Equally popular are board games, which, although usually relegated to rainy weekends, give primary school children an increasing security in counting, adding up figures from the dice, surveying a situation and forming a strategy. If we feel a twinge of conscience at seeing the children enjoy them so much we can always add number lottos: and dominos to the play corner. Since it is almost impossible to buy these things in Ecuador, we keep mailing new games for ourselves a method which might also be useful in places where, although there are plenty of games available, they are too dear to buy. It is important, not only to have a few of these games ready, but to keep the children's interest alive by continually varying them. It is possible to make counters and figures which are as useful and infinitely more colourful than the ready-made ones. A special favourite of ours is the African game of Wari. To start with we used to play it outside, digging the necessary fourteen holes in the earth or sand with an old spoon. Later we made a pottery set, but for everyday use at school we use two wooden sets. I would recommend anyone who wishes: to learn something about the maturity of his pupils, and their ability to learn from experience, to watch children of different ages play Wari.

The games: centre is naturally equipped with geometrical puzzles of varying difficulty, labyrinths and all different types of game that lead on to reflection and problem-solving; also construction games and building bricks in a large selection of shapes and sizes, little cars (and, were it possible, an electric train, but they are too expensive here). If anyone is horrified to think of children spending precious school-time on 'childish toys', let him compete

with me - how many mathematical concepts can he derive in fifteen minutes from this play with bricks, construction toys, cars and railways? I am certain that this little competition would lead to new respect for children's play, and the desire to help them reap new connections and more advanced thinking from this unstructured activity.

This brings us into the third phase of our active arithmetic teaching - the arithmetic centre, which, with all my regard for practical living, movement, and free play, I consider indispensable. Without its help all our efforts to let children experience arithmetic as a living function would too quickly reach the limits of concrete learning and have to fall back upon pencil and paper, sum books and abstract explanations. Besides its manifold unstructured natural materials, the arithmetic laboratory contains a complete collection of structured materials, which help the children gradually to cross the bridge from concrete to abstract thought.

At the start, the children measure by steps, lengths of feet and hands, fingers and elbows; but later they use standard tape-measures and rulers, in addition to a large selection of interesting objects for measuring openings, fissures and furrows, heights and widths. Thus equipped, they measure everything they can find. Later, when they begin to use geometrical instruments, their usage is reinforced by all these other experiences of measuring in concrete situations. Marbles, seeds, water and sand are used for weighing at first, and later we transfer to standard measures and our simple homemade balances are replaced by household, bathroom and correspondence scales and spring balances. Playing with water or sand, the children begin with various containers, and gradually change over to standard measures of all types so as to be more exact. For the experience of measuring time (this comes after measuring space) we use many 'instruments' to make graphic the passing of time during the children's activities instruments that regularly let drops fall, hour-glasses of different sizes, easily-set clocks, metronomes, stopwatches and stethoscopes - all are ready to hand.

The arithmetic centre also contains many baskets and boxes of materials suitable for counting, measuring and weighing – seeds of all types, stones in all shapes, colours and sizes, shells, roots, sticks, leaves, feathers, corks, bottle tops, rice, maize, dried beans, tea, coffee, salt, sugar, sand, marbles, nails, paper clips - a list that can be extended endlessly and combined at will. Each new arithmetical concept can be variously worked out, and extended and reinforced by new variations. Quality comes before quantity, and, for

the strengthening of the ability to generalize and adapt to new situations, each child needs far more of 'the same. just a little different' than we adults dream of. Before we push on to new grades of difficulty, we should allow the child to have experiences of ever fresh quality on the one level.

However, even the richest supply of unstructured materials has its limits. Sooner or later we have to allow the child concrete experience of exact connections by means of structured material. We find the Montessori arithmetical material of incalculable value in bringing order to the many ideas which are not yet crystallized by the unstructured work. Without this help we would find ourselves back in the old explanatory role. The Montessori material has all the good qualities of concrete materials - attractive appearance, and the offer of sensory experiences. It leads the child from his first apprehension of numbers through all the necessary stages - from simple addition to decimal division and the independent discovery of the volume of a cube. The teacher can begin leaving the child to play with the material until his own ideas run dry, recommending, 'See what you can do with this, and when you are ready, call me and I will show you a few things I have tried out'. When I watch children playing creatively with these materials, I often garner new ideas that can enrich the teaching and learning of arithmetic.

Many Montessori teachers prefer to show the child 'the right way' to use these materials from the beginning; this has the advantage that the children learn the arithmetical procedures 'the quickest way' without spending so much time on them. However, for the development of mathematical thinking 'the quickest way' is the least fruitful. If we only want to 'do sums' the quickest way is to use a calculator, and indeed there is some point in asking why we should still learn arithmetic. But by means of creative interaction with a structured material like that of Montessori, the playing child draws near to the discovery of true mathematical thought. It is truly a voyage of discovery, with some danger of losing the way but also the prospect of coming to unknown lands and overcoming unforeseen difficulties. What the children write down on the way is often long-winded, but reflects their excitement and pleasure in what they are doing. Here too, positive experience in actual situations precedes by a long time its translation into symbol.

These perpetually self-renewing, constantly varying experiences with materials are immeasurably more enriching than working through a

textbook, underlining, drawing circles, copying and solving questions. For example, for making the acquaintance of the decimal system we use beads - single beads for the units, chains for the tens, squares for the hundreds, cubes for the thousands, all made out of beads. With these, the child can work with all four basic units. For example, if the answer is 8,537, the figure can be seen. and held in three dimensions. The child builds a tower from eight of the thousand cubes (very carefully so that it does not fall down on him) and, having surveyed his handiwork, places the five hundred squares next to it, their height making plain how much smaller they are than the thousands - often only a gesture of amazement is necessary to make the child aware of this. One question from the teacher at the right moment and the child finds his own way forward.

Here is an example to show how the children themselves learn to abbreviate the process. Eight-year-old Maria Gabriela 'discovered' this herself before my very eyes, and excitedly recommended it to her friends. She laid a large number of 'multiplication chains' in a square on the table, in a colourful mixture of varying colours and lengths. (The different 'tables' are distinguished by different colours.) When she had made the square, she wanted to count how many beads there were altogether, but she kept losing count; so she made a fresh decision, and put all the same-coloured chains together, in groups of five 7's, three 2's, five 4's, and so on. She could work out many of these sums in her head, others had to be checked by counting. Proudly she showed me her 'invention', and then it was only a tiny step to the notation $(5 \times 7) + (3 \times 2) + (5 \times 4)$ etc. From then on she would try both ways. Sometimes she would first lay out the chains and write down the brackets; at the other times she made a long graduated 'tapeworm' out of paper and laid the chains on it.

Beginners' material also holds great possibilities of discovery in more advanced arithmetic. A square cloth (with ribbons sewn on to it to make a 'chess-board' of sixty-four squares) helps the little ones to add up small numbers in rows. They can also see how the number of squares increases diagonally across the board, and enjoy seeing the chains of one colour run diagonally for the whole length. At first it is just a game; later the child starts to wonder about all the different diagonals of the same colour, and whether this means anything. Once curiosity is aroused there is endless interest in further discovery for both pupil and teacher.

Ready-made Montessori material is of course expensive, and completely out of the reach of many schools. Here in Ecuador, where an unfavourable rate of exchange, added to shipping and import costs, makes any regular purchase impossible, we have to make most of it ourselves. Beads worn flamboyantly as necklaces by the Indians, make beautiful materials, and we construct others from local wood. There is no single day that the geometrical materials are not in full use; how could we grudge the many days that we have spent making it?

But does it not worry us that children of the same age are not able to repeat their tables together by heart? How can we be sure that a slower child will ever learn them? Our 'problem child' Alba made the slowest progress that I have ever seen. Her need for practical work with much moving about seemed to be inexhaustible. She never seemed to weary of putting marbles into the holes in the teaching boards. Then, after a long time, she discovered the sequence of 2's. Spurred on by this success, she tackled the 3's, holding the box of chains reverentially. 'If I want, I can count off the chains. But today I want to work it out in my head.' Wrinkling her brow, pacing the room, she worked out something inwardly for the very first time. 'Is it 5?' I shook my head and asked, 'Wouldn't you rather use the chains?' But she resolutely refused. 'I can do it without.' And this went on for a whole hour. She wandered up and down like a scientist on the brink of a new discovery, counting and counting in her head, and clutching the box of chains like a talisman, absolutely determined to manage without it. After this hour of hard work she had 'colonised' the three times table up to thirty. 'No one told me how. I found out all by myself. And this victory has brought with it a happiness that has spread into all the other aspects of her life. Her mother reports, 'Alba is no longer the terror of the family. She hardly ever picks a quarrel any more, doesn't play about with her food, and doesn't nag me for money to buy sweets. I wonder whether difficult behaviour in our children has some connection with the way they learn the three R's and all those other useful skills?

With quicker children the transfer from concrete to abstract usually happens less dramatically and is often imperceptible to the teacher. But instead of measuring the whole class by these quicker learners, it would be much more useful to us adults to watch the development of the slower children very carefully, and to base our conclusions upon them. In this way the slow learners, instead of being the despair of the class teacher, can render her the greatest service.

13: Exploring The World

'For any human being caught-up in the intricacies of ordinary everyday life, early education must provide the eye that sees, the mind that comprehends, and the spirit which leaps to respond. An teaches and develops them all. That is the real justification of the important place it has in education today.

-Sybil Marshall: 'ART'

Applied to the active school, these thoughts acquire a new, wider significance, with relevance not only to the important, and today often, neglected area of An education, but to the 'An of living' altogether. In open schools all over the world educationalists agree that the purpose of primary schools in fact of all schools is not the accumulation of knowledge but the development of insight and chance of a foretaste of learning' which will inspire a lifelong interest. From such a vantage point, we will find it easier to dispense with the old 'subject curriculum'. Instead of carefully distinguishing Nature Study, Geography, History, Physics, Chemistry, Music, Sport and Art, we help the children to open their senses, hearts and minds, and step by step to explore the world and make it their own. The more that a child can feel himself to be respected, the more fearlessly he will be able to open himself both to the world around him and to his own world within. It is easy to understand that An, Music and Sport are meaningful only in contact with materials and in an actual situation. Even in our traditional schools the paint box and sketch-book have been superseded by all sorts of interesting materials. Here in Ecuador these possibilities are only gradually being introduced, and artistic activities remain mostly boring and sterile. Although Ecuadoreans are naturally musical and rhythmic, the enjoyment of music is systematically stamped out when it is taught as a school subject. A friend of ours, who conducts a little orchestra and can play three instruments, claims that he 'knows nothing about music', simply because he failed to learn how to read music in school. Music classes are limited to a monotonous instruction in patriotic (or in the church schools, religious) songs, and a hopeless attempt to impart the son of elementary music theory that any child with access to an instrument could learn in three lessons. Yet we know, from the experience of other countries, that

meaningful, practical music lessons can really give both teachers and pupils pleasure, and remain among the pleasantest memories of schooldays.

When it comes to Sport, nobody has ever doubted the necessity for practice in an actual environment. It would never occur to anyone to replace the gymnastics lessons by lectures or slides. Certainly we see non-participating teachers, armed with a whistle and a spotless tracksuit, dispensing the commands that will result in the obligatory weekly dose of sore muscles. But at least the children learn to swim in real water, and use real equipment for gymnastics and ball games. They experience time and space, learn co-ordination and co-operation, and something of gravity, speed, how it feels to get tired, and other things that increase their knowledge and awareness of themselves and the world they live in.

Thus it is not surprising that it is these subjects which represent the only 'safety-valve' and possibility for movement in the entire curriculum. Many children, bored and dozy the rest of the morning, wake up during these lessons and show their real selves. It is interaction with the materials that allows the possibility of standing up, walking about, taking and fetching. A little chat with the nearest person is not immediately penalised; dexterity or strength evoke due admiration; the children feel more alive, the body comes into its own and engages directly with the outside world.

In the active school these 'movement subjects' are not differentiated from the 'real learning subjects'. Art and craft, practical work, music, dance, sport, offer valuable possibilities of expression the active life of a healthy organism. They are a great help in strengthening self-confidence, establishing balance and encouraging general dexterity and harmony with the environment. In addition they can be departure points for all sorts of 'researches' which can lead on into all areas: of established knowledge. For example, when a child spends hours playing with water, the structures form within him for understanding physics, geography and many related scientific disciplines. Once these inner organic contacts have been established, the ground lies ready for formal knowledge. In their absence, sooner or later we are reduced to rote-learning. In the previous chapter I mentioned John Holt's suggestion for sporting activities which lead on, by way of tape measures, stopwatches, and other equipment, to all types of arithmetic and even statistics. The most interesting aspect of this kind of teaching is that it is centred upon the child's own body and life processes. Rather than suppressing his wish for activity, or only acknowledging it in the

context of competition, we use it as a springboard for exact observations, comparison, measuring and reckoning. For example, we measure out a race-course. Before the race the children take their pulses and note the rates. After it they take them again, and compare the readings. They then rest for, say, five minutes and try again, run again and try yet again, writing down all the results and estimating what the next ones will be. How long does the body take to return to 'normal' after a race? What is the connection between running speed and pulse rate? What happens if the runner carries weights? A large number of questions arise, and are tested against reality, which in turn gives rise to fresh questions. The techniques of measuring, reckoning and recording are practised. And all this without neglecting for one second the body's need for movement.

Or take the much loved Craft lessons. Let us say the children are making various types of ships from various materials. We allow them the freedom to do as they think best, even when it is obvious that many of the ships make up in decoration what they are going to lack in sea-worthiness. We keep our opinions to ourselves. and instead of confronting the children with our greater experience, We go with them to a stream and, with great excitement, they try 'he Ships out. 'Why does yours stay up and mine fall over?' Once again it is reality, and not adult authority, that compels the child to ask questions, to think further, and correct mistakes. 'This time I will build it differently. so that it does not lose the race.' Now, perhaps, is the right time to show around some books with pictures of ships, to take measurements (convening them to scale as required), to try all sorts of experiments in the water tank at school, and discuss the results. A few children go on to an interest in the history of seafaring, reading avidly about the great voyages of discovery, studying maps. learning geography. taking an interest in the tides or anything else that hits to do with ships. At this age, the active school prefers to begin with the child's own activity; not, however, to remain there, but rather to show ways in which the child can acquire knowledge at second hand. However. the most important thing is that this knowledge is not imposed from outside, but is acquired in response to the child's own authentic curiosity Whether it is a question of his own experience or of someone else's, the impulse to learn comes from an active search for understanding.

How can we bring it about that our children discover and take possession of the world without losing their own selves in the process? We believe that the only way is to begin every time from the child's own concrete experience

Every child comes from home with his own experiences- and we have no right to cut him off from them as soon as he comes in at the school door. The school environment must be sufficiently interesting to allow the senses to operate at the highest possible level of consciousness. But the individual circumstance" of each child are so different that the decision 'I am going to do this now' is bound to differ from child to child. Recently we were sitting in the empty classroom one afternoon with a married couple who had moved house to be near the Pestalozzi school for the sake of their three children, when their eldest son, a ten-year-old, slipped in. We could see him, wake up as he came in, His ears seemed to pick up, his eyes opened wide and his hands seemed to be itching to touch everything. Slowly and reflectively he went from one interest centre to the next. Until his glance fell upon the printing press. He pulled up a chair and without a word, began to put back the letters that someone had left in a hurry.

It is this awakening, of the senses in a stimulating environment that empowers each child to make the connections to his own previous experiences. This process then leads to fresh activity, the solving of practical problems, and the raising of new questions. If this process of inner and outer activation is allowed to repeat itself anew every day, the child's organism will have the opportunity to Satisfy old needs, release old blockages and avoid creating new ones, and thus to open the channels for the unhindered flow of understanding of both inner and outer worlds.

In the child-centred atmosphere of the active school, richly equipped as it is with stimulating materials, a similar sequence of events can be clearly seen in all situations. For each new material, the children need what often seems to us an unbearably long time simply for experimenting and 'getting acquainted'. When we built our little laboratory, the children found ever new ways of mixing liquids in test tubes; shaking them, heating them, letting the contents settle, filling them with droppers, filtering them, showing each other their 'experiments' and oiling each other about them. We laid out a large work surface with a protective plastic cloth, and except for compulsory tidying-up at the end, the children were left to it. Only occasionally did anyone come out to show us his work; in general their enjoyment of experimenting and their concentration were so great that the rest of the world was totally forgotten. It was only after weeks of this unstructured activity - for which we have to keep providing new materials - that it seemed the appropriate time for suggestions. Once the first avid hunger for free activity was assuaged and their movements became more peaceful and their

facial expressions more thoughtful, they seemed inclined to allow themselves to be pointed through questions and suggestions, towards new paths. In this second stage they called us more often, showed us their results, asked for advice, and seemed willing to hold conversations and write down results. Later still, their interest had become so strong that they were able to have discussions unpreceded by concrete activity, and to gain fresh information from books.

If we follow this process observantly, and really allow the child till the time he needs for free experiment and playful approach we will become aware of two interesting facts. On the one hand the children come upon far more variations and questions than we could ever have done in formal instruction. On the other they go through phases which seem to have nothing to do with 'pure knowledge' but "late unambiguously to the emotions. An example from our archives may shed some light upon this point.

I knew, from talking to Alicia's mother, that their relationship had been difficult for a long time. The mother is a Bohemian, artistic person, with long grey hair, who dresses in an unusual way. She moves among unusual people, avoids normal society, and has a certain amount of difficulty in showing motherly affection and warmth to her daughter. She often feels that Alicia is a hindrance to her in her painting, and forgets that the child needs others to play with, and that the beauty of their lovely mountain retreat is not enough for her. Alicia compares her mother with other women, and has feared for a while that she might be a 'witch'. (I knew all this from a talk with the mother, when she had come for advice about how to live with Alicia).

Alicia was experimenting in the laboratory, and had just reached the stage of counting the drops, holding the test tube up to the light, mixing, shaking, and writing down the results, and it looked as though she would soon be ready to be guided into the next phase. Suddenly her face changed, and her voice fell into a sort of singsong. She began to move very quickly and mix all sorts of stuff together, and then I heard her invite another child, 'Would you like to play witches with me?' More and more children were caught up in the game, and the excitement rose so high that I feared for the safety of the more fragile apparatus. The children went outside and, with unbreakable 'props', the game became wilder and wilder. They mixed together sand, water and paints, cut up leaves and squeezed the juice from plant stems, until there was no vessel anywhere that was not filled with 'poisonous' liquids, no stick that

remained 'unbewitched'. The game was so intensive that it drew in the whole class. Witches' songs and dances were created, and I had considerable trouble in persuading the class to clear up the incredible chaos when it was time to go home. For two more days various groups revived the game, and then it came to an end with only a couple of final echoes. in the puppet theatre and in print. Our chemistry became scientific' again - and Alicia's mother reported with relief that now her daughter trusted her more, disturbed her less when she was working, and would often sit by her and paint.

How often we catch ourselves wishing to bring the children round, as quickly as possible, to seeing the world from our adult point of view. We really cannot be too clear in our own minds that this impatience leads only to the prolongation of the child's egocentricity and-the limitation or postponement of a fearless openness to new impressions. It is precisely the ability of the small child to allow in experiences and impressions in a free flow, without separating them or arranging them in a logical order, which allows him to store up his rich treasure of living experiences. This treasure is gradually assimilated, and becomes the raw material for later formal thought. We know from Piaget's investigation into judgement and the 'Thinking Process in the Child' that most children feel insecure with logical connections until the onset of puberty, it can long be a riddle to them whether a Yorkshireman can also be English. or whether all Englishmen are Yorkshiremen.

The active school consciously includes this slate of affairs in its programme. It daily offers the children new experiences with new materials in new circumstances. The senses are awakened and sharpened, descriptive words practised, and intelligent action made possible and supported. Anything that is brought into the classroom can be handled and used, and not only admired from a distance. Outings gradually extend the scope of their experiences, and build a bridge from childlike to adult experience. For example, a little child will-play with rhythmic instruments and learn to accompany his first songs. Later he may wish to learn a small melodic instrument. With growing dexterity, appropriate material, and a little help, he makes his own first primitive instruments, and later experiments with recording notes, amplifying or muffling them. From here it is a short step to an interest in the process of hearing, fed by illustrations in books, drawings, measurements, comparisons. If the child can fully experience ail these stages in a way appropriate to his age and state of development, and his own spontaneous interest, he will find it easy to progress to an interest in the

history of musical instruments, an enjoyment of good music, and an interest in its notation, and feeling for the language of modern composition.

By means of this method, which builds upon the child's own experiences and upon respect for his inward processes, we are ultimately able to make clear the basic differences with this outer world which he is poised to explore. In 'Guide for the Perplexed', E.E Schumacher divides the areas of knowledge that deal with the outer world into the main classes - on the one hand the 'descriptive' sciences (such as the natural sciences), and on the other the 'utilitarian sciences' by means of which we learn to investigate the functioning and possible uses of different systems. This latter group is most markedly represented by Chemistry and Physics, and formal logic and mathematics serve to their successful investigation. The decisive question in this area is, 'What must I do to obtain a desired result?' The playful and not always considered handling of objects and materials makes it possible for the child to investigate this world of 'non-renewing' activity gradually to develop his powers of logic.

In contrast to this side, the personal contact with living things, planting and tending, observing, experiencing birth and growth, withering and dying, gives the child respect for the feeling world and its natural laws. As the child perceives himself and knows himself respected, so he will recognise and empathise with the needs of other living things. In the same measure as he knows himself to be protected from manipulation and wrong treatment he will learn to treat other forms of life with reverence, and where necessary to protect them.

Last year we made a fifty page 'report' for each of our children, in which we attempted to describe and record permanently the various activities and steps forward of each child. The report was intended to give the parents an overall picture of their child's schoolwork, and to satisfy the requirements of the Ministry of Education without having recourse to marks: or grades. The teachers of a government school in Quito annotated the reports, placing by each activity the name of the class in which its material is normally taught by them. They also added some astonishing comments. To our 'Very careful and considerate with animals', they had added 'Impossible, all children are inconsiderate', and to 'Takes care of plants and beds'....'Children can only destroy!'

If our schoolchildren are to learn to discover the world in the right way, it is essential that they experience directly, in the real world, the qualitative difference between manipulating more or less lifeless objects and the many manifestations of living nature. No sermon on conservation, no slides or picture-books, will ultimately give a child the feeling for living things. We believe that children who have experienced respect for their true needs will extend a like protection to all living things. To discover the world, does not this ultimately mean to learn to respect life and to love it? Only when children still have the feeling for themselves and their own lives can they learn to value life in other creatures and take responsibility for the world in which they live.

14: Freedom And Responsibility

We see many visitors pass through the Centro Experimental Pestalozzi - parents looking for a suitable school for their children 'our own' parents spending the 'obligatory morning' with us, or showing the school to friends and relatives; students and teachers from Quito's two universities; visitors from abroad. They touch this and that, admire the cornucopia of materials, and perhaps are not able to resist trying out an experiment or a game. Perhaps they shake their heads in amazement to see that it is possible to work out square roots with a handful of coloured pegs (one of our children makes a hobby out of demonstrating this, with numbers of up to five figures!) They remember their own school days, and marvel 'how times have changed' and that a classroom can look like a colourful atelier. If they are familiar with psychology, they praise all the concrete materials and their proven help to the developing intelligence.

But there is rarely an adult who does not, in one form or other, voice some scruple or anxiety about the freedom given to the children. When we hear the word 'freedom' in connection with 'schools' our minds tend to be over-run by frightful pictures - children wrenching open doors as soon as the bell goes and shouting and pushing dangerously in corridors and on stairs, punching each other in the face, being rude to adults, breaking windows, destroying school property, scribbling on books, pulling flies' legs off, shuffling their feet, and refusing to have their hair cut.

Other adults voice a different fear - will not the children get into the habit of doing only what they like, and of avoiding any difficulties? How will they receive a 'balanced education?' How will they adapt to the discipline required in adult society? Will the demands of 'real life' come as such a shock that all the advantages of an active education are cancelled out? One teacher from a good traditional school put it this way: 'How can one go through the multiplication tables if the class isn't quiet?'

Our convictions are influenced by the way our brains work. In his book 'The Mechanism of Mind', Edward de Bono describes, to our astonishment, the extent to which, when analysing anything, we are at the mercy of our thinking, which prefers the help of extreme contrasts in arriving at a quick judgment. He argues that these 'snap judgments' are of great benefit when used as an aid to survival. Incomplete evaluations, shades of opinion and subtleties, are all sacrificed to an immediate Yes or No. However, if we wish to arrive at a deeper understanding, nearer to a genuine reality, we need to abandon our defensiveness. to relax and to take the time to look at the matter from various angles, to 'feel our way' into it, and to use the magic 'word' described by de Bono in 'Lateral Thinking', which sets in motion a process which ends in unexpected and novel solutions. It means something like, 'Let go; be open; the solution is surprising and will come from another direction than the one you have been following'.

If we apply this principle to the question of freedom in school, it becomes obvious that there are not just two, diametrically opposed, ways to approach the subject of discipline. Perhaps we have been accustomed to the two opposites, 'authoritarian' and 'anti-authoritarian'.

By 'authoritarian' we mean that we believe in order and discipline, and use our authority to bring them about. We wish to see results, and assume that an adult can best determine What, How, and How Much is done to attain (if necessary through pressure) these results. The main stress of this argument rests upon the demands made, without reference to the inner situation, upon the individual by the environment and existing social structure.

Or we may prefer an 'anti-authoritarian ' education if these demands seem worryingly excessive to us and we wish to allow the greatest possible latitude to the rights of the individual, even if this course creates considerable trouble for all around him.

In real life, however, there are innumerable situations in which neither 'authoritarianism' nor 'anti-authoritarianism' is appropriate. All life would long ago have disappeared from this planet if it were not constantly upheld by a natural law, which tends, always and everywhere, to strike a balance between outer and inner, high and low, heavy and light. and any oppositions; which lean too far to one side without including the other.

For example: a group of adults rents a holiday cottage. Each one is in search of relaxation and pleasure, none wishes to take responsibility, or tell the others what to do, and all are hoping for a harmonious and enjoyable time. It is easy to see that, even in this apparently unstructured situation, explicit or unspoken basic premises will influence the shared living and the actions of individuals from the very beginning, as small responsibilities and roles are taken up, and small constraints applied. Even where no one feels himself to be in authority and no one would put up with it if he did) temporary leadership arises and is accepted. Perhaps one of the visitors already knows the area: -the others will ask his advice as to which is the best eating-house, or which walks would be too tiring for some or ideal for others. Perhaps another visitor is an experienced sailor: the others will be happy to accept his instructions or let him take them out in his boat. Yet another may be fond of risk-taking excursions: others with life interests, but maybe less initiative, will sometimes join him. Each guest will often find himself interrupting his favourite pastime to fit in with the others, and if a guest is actually in trouble, the others: will put everything aside and help.

This type of 'functional' discipline is practised, consciously or unconsciously, in all situations in which the natural way of living has not yet fallen victim to the artificial. With constantly changing emphases and nuances, it is also the discipline of the active school. Here is an example from our daily life: two boys are hammering away at a piece of wood, completely taken up with what they are doing and oblivious of all around them. A couple of other children cannot hear each other speak above the noise, and call out to the boys, 'Couldn't you hammer outside? We can't hear ourselves speak in here!' 'Yes, of course, seeing that it's you!' comes the reply, and the two carpenters move outside the door.

Activity with concrete materials entails a lot of moving around, as it often happens that children, laden with materials and on their way from one place to another, nearly bump into each other. They learn how to stand aside or dodge, and subtly or otherwise point out instances of clumsiness, or

apologise for them. They ask, 'Can you make a bit of room for me at this table?' 'Can anyone lend me a couple of thousand cubes?' 'How long will you be needing that chain?' if someone accidentally upsets a box of beads, everyone in the immediate neighbourhood quite naturally bends down to help pick them up.

We possess only one, or only a few, of several of the pieces of structured materials, and children often have to wait until the piece they want is available. Everywhere, and continually, both adults and children are coming up against fresh situations in which they have to decide whether their activity is restricting someone else's freedom, or, conversely, whether someone else's activity constitutes a real disturbance. They learn to assess the extent to which they are able to tolerate these disturbances, and where the boundaries are beyond which they cannot let things go. Our basic rules, which make communal living possible, and ensure necessary safety, are respected and observed by everyone. Anyone refusing to do so gets a rough reception from his peers. The rules are so simple that 'every schoolchild' can see and experience their necessity- what you have used must be put away ready for the next person. The activity of an individual or a group must not be disturbed by anyone. No person or piece of equipment is to be harmed on purpose. Anyone taking part in a voluntary group accepts the disciplines of that group.

Protected by this functional order of things, but free to follow all their self-chosen activities, the children ultimately attain powers of concentration, and with them self-discipline, that are comparable only to the devotion, persistence and deep absorption of a truly creative person. They are so at one with their work that no effort is too much, and they often forget to eat or drink. The immediate proximity of the other children continually forces each individual either to choose, from the varied assortment of possibilities, what interests him and to follow that up, to the exclusion of all the others, or to shut out all the external impressions and attend only to his own inner-directed interests. As we read in Taylor (*The Natural History of the Mind*), recent studies of the working of the human brain suggest that this activity (of selecting, from a variety of stimuli, those that correspond to the inner organism) is particularly conducive to the development of the human intelligence. And here we begin to wonder, whether it is worth all the trouble to discipline a class, with homilies and punishments, to that total silence in which everyone can learn the multiplication tables together. In the active

school we daily see the fiercest concentration amongst infinite possibilities for distraction.

Which ideal was it that ha!, so formed us that we only accept as 'learning' what is done under authority, to an exact repetition? Are our schools crying to find the methods which best arouse the authentic interests, and therewith ail the latent talents, of their children; or are they really simply concerned about adapting the children to existing society? In 'The Third Wave', an analysis of our sociological reality, Alvin Toffler describes the ways in which the conditions imposed by existing economic systems have influenced the ideals and methods of various education systems. In his chapter about the 'hidden curriculum' ('The covert curriculum') he writes:

'As work shifted out of the fields and the home, moreover, children had to be prepared for factory life If young people could be pre-fitted to the industrial system it would vastly ease the problems of industrial discipline later on. The result was another central structure of all Second Wave societies: mass education.

Built on the factory model, mass education taught basic reading, writing and arithmetic, a bit of history and other subjects. This was the 'overt curriculum'. But beneath it lay an invisible or 'covert curriculum' that was far more basic. It consisted - and still does in most industrial nations - of three courses: one in punctuality, one in obedience and one in rote, repetitive work. Factory labour demanded workers: who showed up on time, especially assembly-line hands. It demanded workers who would take orders from a management hierarchy without questioning. And it demanded men and women prepared to slave away at machines or in offices, performing brutally repetitious operations'

The Third Wave; Collins 1980. Pan 1981.

According to Toffler, generations of young people have since proceeded from this ever more strictly supervised school system, and have thus guaranteed the continued functioning of what Toffler calls 'industriality'. This educational style of the 'second' (that is to say, industrial) 'wave' has been adopted by communist and capitalist countries alike. The Third World countries, which have come to Industrialization later, are no exception; on the contrary, for fear of 'missing the bus', they use notably cruder educational methods than would be tolerated in the 'developed world'.

If we pursue Toffler's line of argument, we find ourselves on the threshold of the new, the 'third' economic wave. Even for those who believe in the unconditional adaptation of the individual to society whatever the circumstances, the question arises as to whether the educational ideals of the second wave will still be valid in the third. For Toffler, anyway, there is no doubt at all - the Third Wave will no longer ask for the combination of 'punctuality, obedience, and willingness to do routine work', but rather for certain creative abilities which differentiate us human beings from the mechanical marvels of micro-electronics. These abilities require the highest possible degree of integration of all our brain structures, free access to our feelings, and powers of judgment and decision which could not be mustered by even the most sophisticated micro-electronic circuit.

Decision and judgment - two concepts that lead us directly to our question of freedom and responsibility. To be able to take decisions, we need the opportunity to practise it continually and in very different circumstances. It is comparable, though upon a higher level of consciousness, to keeping our muscles in trim. The small child does not learn to walk by reading about it, or listening to lectures about the correct sequence of movements, or the rules of balance, gravity, and speed, but by tireless practice. He has innumerable tumbles, and gets up again. Now and again he will need help, but the prime necessity is freedom of movement and a varied environment, in which, without undue risk, he can overcome his difficulties and attain the mastery of walking. A child in the sensitive period of learning to walk will be inexhaustibly persistent, and no effort will be too much for him.

Even this everyday example serves to show how much the degree of responsibility is conditioned by the degree of freedom of movement. While we lead a child by the hand he will allow us not only to lead him but to take responsibility for him; it is up to us to see that he does not tread in a puddle or stumble over a stone, or get run over by a car. But if the child goes out exploring alone, he will pay far more attention to everything in his way. He will consider for a long time whether he dare jump a ditch, and will have a good look at every obstacle to see whether he can surmount it. His consciousness in the act of walking is, so to speak, in a higher gear. He feels responsible, and as part of his responsibility he learns to correct his mistakes. If he falls over and hurts himself, he learns to put up with the results of his: own action. A child who is led by the hand is also 'walking', but his walking is of a different quality. The level of consciousness is lower;

the adult is looking ahead and setting the direction. Any lack of observation on the child's part immediately calls for corrective action from the adult; even if he falls over, he does not feel fully responsible for it, and will be far less willing to connect his pain with his own mistakes - he may even turn accusingly to the adult - 'You weren't looking'

There is no doubt at all. If, when they reach adulthood, our children are to have the ability to take decision, exercise judgment and undertake responsibility, they already now need countless opportunities to practice these 'skills'. If school is to be a preparation for a future in which, if we are to believe Toffler's scenario of the 'Third Wave' flooding in, a differently structured society will make different demands upon individuals, we must begin to change the 'hidden curriculum'. Which human qualities will be important when the combination of 'obedience, punctuality, and routine work' is no longer valid? Toffler evokes it vividly - the processes of production will be taken over by highly intelligent machines, which are obedient, reliable, and punctual, and have no objection to routine work. Human beings, on the other hand, will use their creativity and imagination to plan and direct the complicated work that the machines will be doing, and to be able to foresee and as far as possible to avoid problems in production. This will require a high level of observation and adaptability to the unforeseen, if they are not to become the slaves of these intelligent machines, forced constantly to attend to them at short notice to stave off catastrophe.

We can also imagine that the liberation from boring routine work will leave people more leisure and more home life. The family - or equivalent circle of persons living together - will probably spend more time together than it does today, when it is hard to tell whether a husband is barely speaking to his wife because they are genuinely not getting on with each other or because he is so exhausted by the time he gets home from work. If we are to have more time together, we shall have to learn how to communicate with each other, and to gain control over our emotions and human weaknesses. The new 'hidden curriculum' must give our children the opportunity to encounter their own feelings in a variety of unplanned situations and to learn to handle them responsibly.

If we try to unite all these elements, we come to the speculative conclusion that the future will demand well-integrated human beings, who differ from intelligent data-processing machines in their creativity, strength of feeling

and high level of consciousness. Thus creative and analytical thinking, decision-making, judging and acting responsibly with a high degree of awareness will all have to be practised, in school; now. The old teaching methods, which restricted awareness and suppressed the feelings, and left responsibility in the hands of authority, can no longer suffice. However well-intentioned we are, however convinced that we know best 'what, how much and when' is good for them, if we educate them simply to do what WE wish, we harm them. Even if it is as painful to us and them as the flexing of a long-disused muscle, we must start today to learn to feel, to decide, to judge, and to be flexible when an unforeseen situation arises.

Despite our fears, we have to come to grips with the question of freedom in school. Possibly we feel helpless. When have we ourselves ever been really free? At school? At work? How much experience of freedom have we ourselves, to be able to share it with the children? We need to recall times in which we have experienced ourselves as truly alive, in possession of all our feelings, full of interest, and fully and totally human; and it is from these times - in the family, with friends, on holiday, engaged in some especially interesting work - that we need to construct the 'model' for the 'School for the Future', a school in which the children are already allowed to be human beings today, so as to be so in the widest possible sense when tomorrow comes; a school for Being, and this does not exclude learning or knowledge, for I can truly 'know' only when I truly 'am'.

John Holt, who has for many years campaigned in America for new forms of education, writes:

'Some might here object that the freedom that is won by one person must be lost by another. Not so! Freedom is not some lump, exactly so large and no larger, from which each one has to tear the largest piece that he can. The greater freedom which I have and feel (and to a great extent I have it because I feel it) is not won at the expense of another. To a certain, I hope to an ever-increasing, extent more freedom for me means more freedom for other administrators, teachers, parents, and above all students and schoolchildren. The less we are imprisoned in a narrow and rigid idea about how things ought to be, the freer we all are in our progress and development. '

In his sixth chapter, about Piaget's influence upon educational theory, he raises the problem of freedom that Piaget emphasizes, and re-emphasizes, that a human intelligence worthy of the name can grow only through

freedom to act and experiment, to make mistakes and to put them right; that it is only interaction with equals that leads to social responsibility, and that the exercise of 'authority' only strengthens egocentricity and delays or even prevents the development of the truly human personality.

In his book 'The Undiscovered Self', C.G. Jung paints a vivid picture of modern man. He speaks of the way in which we usually believe unquestioningly that our little consciousness encompasses the whole truth, whereas in fact we are unaware of our own hidden feelings and impulses and unable to assess their strength. Through this ignorance of our own undiscovered self, our 'shadow', we live in inexplicable tension and fear. But usually we do not feel able to become aware of our 'shadow', and from this growing awareness to take full responsibility for our own selves, and so we gladly hand over this responsibility to an 'authority' - which may rob us of our freedom but promises us security. We project the dark and frightening feelings which arise from the depths of our subconscious selves onto our surroundings and onto 'those other people' who 'will not let us: live in peace' - opponents, another political party or another nation. If all these unconscious projections could be manipulated to its own ends by some power which assumed full responsibility for us all, it would be a short step to the destruction of the whole world. In this way Jung shows that the development of a higher awareness is essential not only to greater fulfilment for the individual, but to the survival of the human race. In 'Janus', Arthur Koestler gives us a further insight into the problem of freedom, arguing in the chapter 'Free will in a hierarchical framework' that this free will is dependent upon a large choice of possible actions. The lower a creature is on the evolutionary ladder, the fewer are its possibilities, on the higher rungs the choice is greater, and with it the opportunity to exercise free will. All the nuances of free choice and free will that we find in creation can be found in each individual. Koestler's illustration is that of a driver on a good road with little traffic, who puts his consciousness on 'automatic pilot', driving automatically while thinking about something else (just like a child in a boring lesson at school). The task of driving the car is relegated to a low level of consciousness. However, when the driver wishes to overtake another car (or when the teacher approaches), the half conscious routine gives way to a higher degree of alertness. If there is a really dangerous situation ahead (or if the pupil is called up to the blackboard) a still higher alertness is called into play.

Throughout our lives we act upon these different levels. The automatic character of routine work o, free us for new insights on a higher level, but to spend too much time on 'automatic pilot' threatens to turn us to robots or creatures of habit, and reduce our access to greater alertness. This is most important at all stages, but absolutely critical in childhood, when most of our habits are established. The use of our higher awareness allows us a higher grade of free will; if this is to develop fully, it needs to be put into practice by the taking of decisions under constantly changing circumstances. This practice entails hard interior work which is seldom visible from without. Freedom is not simply an 'absence of rules'. Koestler draws an analogy with chess, where the rules are the same for the beginner and the Grand Master, but his higher level of thinking allows the latter an immeasurably larger number of possible moves; thus although both obey the same rules, the Master's freedom is far greater.

The 'basic rules' of the active school operate in a similar way. They apply to everyone, children and adults alike, and serve to aid everyone to make meaningful decisions and thus to attain fresh levels of awareness and be ready for fresh responsibilities. Koestler again:

'Habit is the denial of creativity and of freedom; a voluntarily donned strait-jacket of which the wearer has no knowledge.'

And he continues: 'Another enemy of freedom is passion, or, more precisely, an excess of autonomous emotions. When these are aroused, the control of our behaviour passes to the primitive levels of our consciousness which belong to the 'old brain'. The urge for freedom that results from this downward shift is represented by the legal term 'diminished responsibility' and subjectively by the feeling of acting under pressure, as is vividly expressed in such sayings as 'I simply couldn't help it', or 'I first my head', or 'I must have been out of my senses'.

Passions - are they not the suffering and unsatisfied needs from childhood, often blocked off together with their attendant pain but still ever present? In the open classroom, where much comes to the surface which elsewhere remains hidden, we can observe various types of 'un-freedom'. There are children who, for whatever reason, have not had enough human warmth and bodily contact. They hang like fetters upon the teachers and the other children, and can make only limited use of the vast choice of materials. They wish an adult to be at hand in everything they do, and if necessary will not

hesitate to call one. The many opportunities to learn on their own and through their own mistakes are all too often sacrificed for the satisfaction of a deeper need.

Many children have not previously been allowed sufficient freedom of movement, and they have to make good this lack by following up their impulses, which makes many seem as though they are being mercilessly chased around. They cover several miles a day in their rushing, and only gradually settle enough to become aware of the many possibilities of things to do quietly. Others lack personal autonomy, having been pushed and led and instructed in all places and at all times. These children need to keep on checking that they are really free to do what they like. They avoid adults as though they were monsters; and as long as they still feel this mistrust they are naturally unable to make use of many of the available opportunities to learn or experience something interesting. They meet any suggestion with 'No', and will even stay in the building when the others are going swimming or on an outing - until they understand that no one here is going to force them to enjoy themselves; and it is then that they begin to be able to make genuine decisions. We could continue to name many unsatisfied needs and the un-freedoms that result from them. In the active school they manifest quite clearly as inner limitations in individuals, hindering them from making decisions and from living in harmony. How then can we help these children attain to a higher freedom, and a greater awareness to open themselves fearlessly to the world around them? 'Fear Warps You' and 'You Can Study Stupidity' are two books by Jurg Jegge, in which he adduces many examples of the 'warping' effect of inner and outer pressure. How can we help children grow up straight, intelligent, open and aware? For Janov there was no doubt old blockages must first be released, and old needs satisfied. And in the active school we allow the children the opportunity to satisfy these unsatisfied needs, as long as this does not harm other children or restrict their freedom. It may sadden us that a child misses out, for example, on his sensitive period for learning delicate movements, and perhaps will never write as beautifully as the child who has spent this phase practising 'calligraphy'. But the first child must be allowed to run and jump and climb, because this need comes from an earlier stage of development, and if it remains unsatisfied it will engender tension in the child's whole being.

If we respect these inner pre-conditions, and allow them a legitimate form of expression, we may be able to win the children's trust; and it depends upon the degree of trust whether and how we can help the children further. in

Chapter Sixteen I will describe some of these therapeutic processes, in which increasing freedom goes hand in hand with a growing sense of responsibility, along with inner 'letting go', growing awareness and openness towards the outside world.

I would not like to close these thoughts on 'Freedom and Responsibility' without mentioning E.E Schumacher's contribution in his wonderful 'Guide for the Perplexed'. He too speaks of the hierarchy of consciousness, the ladder which rises through the four great life forces. He describes the way in which every activity, ascending through the forces, transfers from external to internal motivation. A stone can be moved or changed only by an outside agency and takes no inner part in this process; plants, however, already show a limited capacity to adapt to outside circumstances by inner change. Animals extend the possibilities for action through their wider awareness and ability to move freely and purposefully. They can express joy and sorrow, trust and fear, expectation and disappointment, and thereby they show evidence of an 'inner life' and a clear evolution from object to subject.

All these stages from the external to the internal are represented in man. He is often 'pushed around' like an object; like a plant he has to adapt to many different conditions if he is to survive; and like an animal he is spurred on, albeit unconsciously, to action by his urges and emotions. However, not all his actions are externally motivated in this way, as he has a fresh power not present in the other forms of life, which we might refer to as his 'inner will'. This inner will gives him the power to move and act without an external 'motivator'. Man has an 'inner space', a source of creative possibilities, which can be both created and extended by the life forces, and his awareness of the world and of himself.

'It is only when man uses his capacity for introspective contemplation that he attains to the level of true human-ness and of freedom. From this moment he is able to live, instead of 'being lived'. Certainly there are many pressures, which have accumulated in the past, and can determine his actions. Yet still a small breach has been made, a small change of direction begun. It may be barely perceptible, but many such moments of reflection can bring out many such small changes, and perhaps some major ones.

He continues:

'To ask whether man is free is like asking whether he is a millionaire. He is not, but he can become so. He can declare his aim to be the accumulation of riches - or the attainment of freedom. And within his 'inner space' he can develop a centre of power, so that his freedom of action is stronger than the constraints which bind him.'

Does not his 'extension of inner space' mean an extension of inner experience, which cannot be counted, weighed and measured by the current scholastic criteria, but without which no one can be a fully present human being? I do not believe that we in school should consciously attempt to develop methods of cultivating inner awareness and inner experience in the children. Our task is surely to help them find themselves in this world, in time and space, But this attitude inevitably .acquires a new meaning when our work takes place in the full awareness of the importance of the inner Life. In a school which aims to educate for Being, we will come up against both quantifiable and unquantifiable experiences. We must always: be ready for the emergence from the children's inner space of a 'free will' which we must learn to respect.

The inner space does not only serve for self-sufficient inward contemplation; it also serves as a field of power which sets both inner and outer activities in motion. For these activities;, as they get under way, beginning as an inner happening and flowering into external activity, we as educators must create a fitting 'outer space', and learn not to be hindrances within it. In his famous books,' 'Small is Beautiful' and 'Good Work', Schumacher gives many examples to show that this creative activity is not confined to the 'inner life' but, in a new and more humane way, can confront old problems with new, unexpected, solutions.

It must now be possible for us at least to have some inkling of the answers to our questions; but valid answers can issue only from the practice which makes proof possible. We experience daily that in their search for knowledge children are never 'one-sided' and never attempt to avoid difficulties, if their activity is motivated from within. In their own time and in their own rhythm, they open their hearts and minds to all fields of knowledge. They are free of the prejudice against certain subjects, and the feeling they are too difficult, that is caused by faulty or untimely initiation. But, above all, in these years of self-directed living, they have built up so much personal security that they will never be crushed by the demands of society, or become 'undesirable elements' owing to any lack of self-

discipline. In the appendix to his book 'On Teaching', Herbert Kohl publishes interesting research data, acquired by comparing large groups of pupils from traditional and alternative schools for many years. They show clear proof that at college and in professional family life the advantages of an alternative education can be clearly perceived many years after the child has left school.

15: Children, Teachers, And Parents in The Active School

'The open classroom is centred as much upon the teacher as upon the child. More precisely it is a 'people-centred' environment, open equally for the teacher's growth as a thinking, feeling and acting human being as for the child's. As Charity James has written in 'A Question of Young Lives', it is also a question of the teacher's life. Teachers should demand that the same respect and optimistic approach are applied to themselves as they are expected to bring to their young pupils.'

-Charles Silberman.

If we look more closely at these 'people' and their relationship within the open classroom, it becomes immediately obvious that the parents, too, are vital to the picture. In our special situation, as the country's only active school, this becomes especially clear. In countries where this type of education is widespread, and results and evidence well-known, new parents can have any scruples set at rest by the support ' of the longer established. Here, it is only in the rarest cases - perhaps people who have seen alternative education abroad - that we can hope for ready-made understanding; and for the typical Ecuadorean father, such foreign experiences provide reassurance, because of the persistent question as to whether so 'modern' a system can only function in an industrialized country.

Thus it has become increasingly clear to us lately that we must work closely with the Pestalozzi parents. However, before we can strike up any close relationship, our introductory interviews often exercise a certain process of selection. Many loving parents simply take flight at the mention of 'Respect for the child's needs'.

The underlying parental attitude is especially important when we come to the infant school. Anyone who has already been involved at the kindergarten stage finds it easier to understand our methods; but every year we have a small intake of children who are transferring from other schools, and here we have to make sure that the parents are not simply escaping from a negative situation, but also have sufficient understanding of the 'active' principles to be making a valid decision. The children from the parallel kindergarten, Pestalozzi II, have an automatic right to a scholarship in Pestalozzi I, but these parents still have to go through the mill of preparatory talks, after which a contract is signed. The school undertakes to provide all the wherewithal for an active education, and the parents promise to attend a lecture once a month, and to visit the school and observe the children's activities once a term.

A further way of ensuring the parents' understanding and sincerity arises naturally from our custom of 'pre-school'. Although education in Ecuador is compulsory from the age of six, we do not accept children officially in the primary school until they are seven. Between six and seven they have unrestricted access, if and when they wish to the 'big ones room', but are equally free and welcome to remain in the Kindergarten. This arrangement has arisen from our experiences with first-year children. It has been clear that, once the first excitement at being 'in big school' had worn off, most of the six-year-olds far preferred to go back to the Kindergarten; but most of them were under great pressure from home to 'get ahead with the work' - that is, to show full exercise books and other such visible proofs of educational Success. This meant that they were frequently torn between their own wish to spend more time in the Kindergarten and their parents' exhortation to be like 'proper schoolchildren'. But it is at precisely this age that the differences in individual children are so markedly noticeable. Many have just about come to the end of their 'pre-operative' phase, and are obviously ready to embark upon the operative phase and the appropriate type of work, others have not yet reached this point and need more time to grow.

The signs of unreadiness for school are particularly clear in children who have not been able to cope with the emotional difficulties of the first few years. Allowed the necessary freedom, they will follow their own natures, and try to restructure their feelings as far as possible before entering upon the next phase of development; and it is precisely in this first year of school that this attempt is made. These six-year-olds will often talk like babies for months at a time, seek out much younger friends, play with dolls, and land

endlessly in adult laps for a good cry. They realize that this sort of behaviour will not be well regarded by the older children, and feel happier among the little ones. Thus it is often more because of social pressures than because of intellectual unreadiness that such children stay longer in the Kindergarten.

Parents who, even unconsciously, attach more importance to what other people think than to their child's welfare are horrified at the idea of their child spending an extra year playing in the Kindergarten, when all the others are sporting heavy briefcases of books and papers, and spending their afternoons doing homework.

We hear constantly from 'our parents that life can become very difficult when they insist on an alternative education for their children. Family ties in countries like Ecuador are far closer and far more powerful than in more developed countries, and young people who wish to tread a different path are subjected to pressures from all sides. This means that we see it as our duty to warn parents, particularly infant-school parents, of this danger, and to give them as thorough as possible an introduction to the basic principles of active education. The monthly sessions pursue a two-fold aim: on the one hand to make possible study and discussion of important aspects of active education, and on the other to foster human contact between the adults, who offer each other mutual support in their convictions and often become good friends.

During these sessions we hear many anecdotes about the children's home life. The parents' uncertainty about how to cope with the constant criticism from their many relatives gradually changes into pride at their 'active' children, who are increasingly shown to be intelligent human beings who can cope with life. One mother with an eight-year-old boy recounted: 'Last Sunday we were both in a bad mood and neither of us wanted to make the breakfast. We were arguing over who had worked hardest during the week and most deserved a lie-in. As we really got going with the quarrel, Santiago disappeared into the kitchen, made toast and eggs and coffee, laid the table, and beaming all over his face, called us in to breakfast!' This is a child who came to us with the label 'hyperactive' and had already been written off by two other schools as unteachable.

These experiences of seeing the children solve problems and stay calm under stress (and especially the astonishing fact that they never get bored, because they are accustomed to finding themselves interesting things to do) are an enormous encouragement for the parents. They begin to compare their

children with those of friends and relatives, and realize that their own children need far fewer 'treats' to enjoy themselves. They do not ask for expensive clothes, preferring simple ones 'to work in'; they do not suffer from 'exam nerves' or fret about marks, they do not complain about the teachers or the other pupils, and do not call in the whole family to help them with their homework. Active children are glad to get up in the morning, are very rarely ill, and do not need expensive tutors or psychologists. Most of them would prefer to spend Saturday and Sunday at school too, and find the holidays far too long.

'Active children' bring fresh air into the family. An increasing number of parents become caught up in this new approach to life, discovering new interests, or enjoying books on child development or on human life in general. Many become 'active' themselves, and offer to help with the preparation of materials or with excursions, or in the swimming-bath. The 'compulsory morning' at school becomes ever more interesting. The first visit sees the parents: still uncertain, unsure what they should be observing, and how, and which questions to bring to the parents' session. Next time they enjoy taking part, watching not only their own child but others, whose families they have now come to know. They are delighted when a child comes to them, to read something, and to ask for help with arithmetic, or baking, or craft.

These changes are not always totally problem-free. Sometimes it is only one parent who feels the wish for change within the family or within himself or herself; and this can lead to tension in the marriage, which in turn can create unexpected difficulties for the children. We find ourselves needing to develop a sixth sense for these minor (or major) crises, and to make an opportunity for help and support should these be required. We see with great pleasure that some parents, spurred on by their children, begin to seek out alternatives for their own lives, and come to renewal or deepening for themselves. But we have to be careful not to expect, nor to hope for, such changes. This is perhaps the hardest part of all our work; to create at school, day after day, an environment worthy of human dignity, even when there is no change in the situation to which the children return home; but still to be ready to offer help and support when the parents are unable to handle the change in their own attitudes.

The greatest difficulty posed by the active system to the adults of today is its insistence upon allowing the children to be as they really are. We find it

amazingly difficult whole-heartedly to allow them the rich experience of their child's existence, without burdening them with our own past or our expectations of the future. Generally we are constantly busy at motivating the children towards all the things we find important; and we fail to help them further along the paths to which their own interests have led them. Since we ourselves have yet to learn to unite theory and practice in one, we shrink from the dynamism of children who - thanks to the active system - have not been forced to live with this disunity. We become aware that we can only acknowledge the children's 'inner space' to the extent that we are able to acknowledge our own; and only to the extent that we ourselves are willing to stand upon our own feet, to take decisions, and accept responsibility can we not only fearlessly allow this process for the children, but enlist our own experience in its active support.

The active system gives us the opportunity to see the children not as a 'genus' but as individuals.

Ages and abilities are mixed. Last year we had six to ten-years-old all together in one room. This 'family grouping' frequently used in open schools, has various (and in our view, positive) results. It becomes harder for adults to treat the children as though they were all of a piece and could maintain a uniform pace of learning, or all take an interest in the same things. The children are less inclined to be competitive - they can easily understand that younger children will know less but are not necessarily more stupid, and that the older children's greater knowledge does not necessarily make them cleverer. If we have been accustomed to push the children by playing off one against another with praise and blame, or to use the prospect of punishment or reward to bring the class to a uniform level, we may see this lack of competitiveness as a negative trait. But in the active school there is no longer any need to adapt all the children to a uniform model or to maintain a uniform standard. Each child has his own standard and his own aim. We take it for granted that each child is different, that there are differences in age, maturity, intelligence, and emotional circumstances, and are not tempted to compare one child with another. We educate ourselves to allow each child to be himself and to be the yardstick of his own progress.

Instead of being subject to the pressure of marks and the need to keep in step with a group of contemporaries (artificial conditions imposed from outside) the child in a vertical group is caught up in a natural dynamism which serves his organic growth. Younger or weaker children can model themselves upon

older or more intelligent children and thereby unconsciously reach a higher level of ability. Older children, feeling themselves imitated, instinctively seek out fresh themes or methods, in an attempt to shake their followers off. But, above all, the motive power behind all this ceaseless activity does not come from any external pressure, but from the genuine interest which reflects a true interchange of the outer and the inner. In the active school children do not, as commonly believed, take the way of least resistance, but tackle and conquer progressively increasing difficulties - and this not because of 'pressure from above' but as a response to authentic inner needs, heightened by the varying nuances of difference among the children, rather than, as in the traditional school, to the attempt to bring all the children to the same level, 'homogenised' and ready for the next input of material .

Later life shows us that 'slow' or 'stupid' children who have successfully resisted the pressure to 'keep up' at school do not 'stay behind' for ever. The classic case of Einstein, considered a 'slow learner' at school, can hardly be unique. But sadly, it is to be feared that all too many children, who have not adapted to school, early lose their faith in themselves and thus bid farewell to further development for the rest of their lives. Equally, the 'star pupils' who have always pleased their teachers often only copy with life by seeking shelter in professions' which exclude the possibility of having to handle the unforeseen.

In an active school the children's individuality is respected and guarded. As much attention is paid to the 'pressure from within' and the widening of 'inner space' as to outer necessities. The need to be alone can be fulfilled as can the growing need to work with others. Blockages from earlier on can be released, because we allow the children to give the necessary attention to longstanding intellectual or emotional problems, and to work through them afresh. New problems can be tackled as soon as the child feels open and ready to do so, and thus they are more easily solved. The whole 'drill' of school life is not allowed to block off the contact with the original inner life, or to work against the child's openness to the world outside or the world within.

We do not stop at encouraging these daily, 'normal' differences in the children, but we also encourage the interaction of often very marked social and racial opposites; and we are happy to find that children who feel that their own most important needs have been respected have no problem in accepting these differences too. We also feel it is important to allow

handicapped children to mix with the others, and for this reason we always accept number of handicapped children who would otherwise not have the opportunity to attend school with healthy ones. Unfortunately we are unable to absorb so high a percentage of handicapped children as for instance the Montessori school in Munich, which is able to work closely with the university's medical faculty there. Since we have no trained therapist, we dare accept only 5 - 10%. We ascribe the truly excellent results to the large choice of materials, the respecting of individual needs, and the constant company of the unhandicapped. The dynamic of these differences in daily life brings profit to handicapped and non-handicapped alike. Here is the opportunity for daily exercise of those highest of virtues, humanity and tact, tolerance, and active readiness to help. Unlike adults, children are not tempted to 'label' a child as 'handicapped', and treat him accordingly. With complete openness of spirit they go straight to what everyone has in common, without being 'hung up' on the differences; and in this way a human relationship arises that is of benefit all round. For example, since last year we have had in school a brain-damaged fourteen-year-old who is far bigger than all the other children but has obvious problems with movement. In the absence of an appropriate special school, this poor child had been sent to an ordinary school where he was tormented with the three R's for seven long years but never got beyond the six-year-old level. It was only after the active system had given him the chance to pursue his true needs that, after several months, he started to want to try the same work as his seven-year-old friends. The other children knew that Gustavo had been ill and 'could only learn slowly'. They accepted him unreservedly, invited him to all their birthday parties and to all the games at school, and it never occurred to any of them to make fun of him in any way.

What, then, about the teacher within the active system, whose life is equally 'on the line'? In the summer of 1982, while I was forming the idea for this book, we ran as usual an intensive introductory course in the active system. On the first day we were honoured by the presence of two bejewelled ladies who pointedly addressed each other as 'Doctora', to which title they wished to add our diploma in 'Introduction to the active system'. However, at the end of the day they suddenly 'remembered' that they were expected elsewhere and could not continue with our course - thus avoiding any danger of closer acquaintance with an alternative which threatened to take a close look at their own values.

The remaining twenty participants, including three young teachers from traditional schools, sincerely tried to seek out new solutions, but with no idea how deeply they themselves might be affected by them. Each one underwent a sort of crisis during the course, and needed help, from the group or from a confidant, to come through it. One young woman confided tearfully, 'I cannot bear the lectures on child psychology - I keep remembering all the lessons I have taken with the cane ready in my hand.

But more powerful than these lectures were the contact with the tangible materials and, finally, the tape-recording that had been made during play therapy, and depicted an eight-year-old playing out, through dolls, the quarrels between his parents, and himself, powerless, torn this way and that between the two, in the middle. This tape released such strong memories for one young woman that she left the room in tears, and many others admitted later that they had found it hard not to do the same. The daily work with the tangible materials had made them more sensitive, and unexpectedly a contact had been made with their own feelings, resulting in a flood of old memories and a growing doubt about, everything that we have been taught from outside but have often not brought into harmony with our own selves. In such a situation, a beginner needs help from others who have had similar experiences and who are still learning to become more open and sensitive.

The course is over. We have taken a week's holiday, and after a ten hour drive we have pitched our tents near the palm trees on a beach to the North, and are able to stand back a little from our daily work, it seems a good opportunity to clarify our own feelings and to think and feel about our own role in the active school.

Immediately a young teacher comes to mind, who had been working in a poverty-stricken region of the Andes with children of all ages for the past five years. He had soon realized that in his situation the official regulations were more of a hindrance than a help, and that he must find his own methods and long term aims for the children. He had been working, alone and unappreciated, in his own way, without knowing enough about the inner learning processes and the importance of tangible materials. Then he heard about the Pestalozzi school. The following day he sent the children home and travelled to Tumbaco to learn about our work. He sat among the children all morning and watched what was going on.

Here is what he said:-

'I am used to being with children. But this morning I felt totally flattened by the vitality of these children. Among them I did not exist, and they only took notice of me when they had nothing better to do. As long as they were busy with their own projects they forgot all about me - I have never felt so insignificant. Now I realize that, in spite of all my good intentions and new reforms, I was still 'the boss' in my school. As I walk along the beach, I am given a little more understanding of this feeling that we adults get from the children in an active school. Their vitality is like that of the ocean, a primitive force which often seems both wonderful and frightening. If we pit our full size and strength against these children, we are like rocks against which the sea rushes, foams up and immediately sweeps back, with only a brief contact between the two and with the sea hollowing out the stone but leaving nothing behind; whereas, the flatter the beach the more lasting and total is the meeting of water and land. The power of the waves fits itself to the shape of the beach and every high tide leaves behind astonishing sea treasures. The beach, too, changes shape with every tide; it is an effortless, non-violent, give and take.

This picture can give us a feeling for the basic attitude of the teacher in an active school. He attempts to be 'flat' inwardly and outwardly. At the end of a school day, even if he is tired, he does not feel battered and hollowed out, but peaceful and enriched. Every day we should be able to gather up the treasures the children have left us, not only well-written notebooks, or pictures, but above all a new understanding about their own reality. Each day we should be aware of the subtle alterations that the children have brought about in us; and when we lay out the new material for the next day it should feel like Laying out our treasures for the sea to sweep effortlessly into itself, bringing back in exchange glorious treasures of its own.

In his 'Psychology and Education', Piaget hazards a guess that it is the fault of the inner attitude of adults generally and educationalists in particular, that the active system is still so sparsely distributed. He thinks that teachers are too deeply accustomed to 'give lessons' rather than to carry out the many different tasks that are required in the active classroom; and that the true 'scholar' is the primary school teacher, who is best able to watch the daily growth and development of the children, to bring them up against new situations, and to evaluate what he sees. Unfortunately, reality is far removed from this ideal. Here in Ecuador, at any rate, where the active

system is still unknown, we need all our strength to fight for day-to-day survival - but we too hope to find time later to evaluate our experiences.

It would be wrong, however, to describe only the beautiful and rewarding sides of the 'active teachers' work, or to paint a fantasy picture. We often feel under pressure from all sides, not least from within; a pressure which cannot, even at weekends or on holiday, so easily be put aside. On the one hand there is the pressure caused by our constant outer lack of security. Other private schools are thought of as 'good business'; they take many children and provide classrooms, a playground, possibly sports equipment, and teachers, and not much else. But the active school can never rest content with things as they are. In more developed countries children have- access to libraries, for instance, and schools often have government or private subsidies. But here it will be a long time before we can expect any official support. The school's survival stands or falls by the conviction of the parents who decide to embark with us upon our 'experiment'. In addition, we also wish to be able to accept children from poor homes, if their parents are convinced that it would be valuable to them. Many of the paying parents are anxious about this, and fear that they will have to pay to educate someone else's child. Scholarships from abroad are generally intended explicitly for 'poor Indian children'. But this category is too narrow; we should like to try to extend a more humane education to anyone who feels the need for it, so that a new generation can arise who have a natural social awareness, and can find fresh solutions for the future of this country.

We enjoy none of the privileges of the traditional school. Our future is in no way secure. We ourselves draw no fixed salary, have no health insurance and no prospect of a pension. Any personal interests come far behind our concern for the school. On the other hand it is essential that we satisfy the Ministry of Culture, fill out all our forms cultivate important contacts, and show willingness for co-operation by giving lectures and allowing access to all sorts of visitors. This side of the work is often time-consuming and frustrating, but has to be given its due, if our alternative education is not to suffer a premature demise.

Finally, the recurring doubts and fears of the parents place us under pressure too. Often a family brings us a child who shows clear signs of 'school trauma'- asthma, bedwetting, nightmares, and other clouds upon the family life. Usually, after a few weeks or months, the child is free of these worrying symptoms; but the parents forget why it was that they originally brought

him, and press us to 'take a firm line with him' so that he does not remain behind his friends and relations - meaning that he has not learnt as much by rote. If we want to guard against their tendency, out of fear of what others may think, to take refuge in the long established and familiar, we have to be prepared to devote considerable time and attention to their problems,

However, the chief pressure usually arises from the standards which we ourselves set. The functions of the new teacher, as described in detail by Charles Silberman in his 'Open Classroom Reader'. Though many and various, there is only limited opportunity for individual specialization. Whereas the traditional teacher is usually guided, for the most part, by syllabus requirements, and accepts his share of responsibility and decision within a framework, the active school teacher has constantly at all times to stand on his own feet'. He is responsible for the layout of the classroom, for the selection, acquiring or making, and maintaining of all the countless different materials which are intended to stimulate and guide the children's learning. This aspect alone gives us more than enough to do. Any efforts to share these responsibilities with volunteers, who do not work directly with the children, are generally short lived, because only the person who lives with the children's changing needs and interests day after day can ultimately feel sufficiently motivated to go on thinking of new ideas and tackling the work involved, if parents offer to make something, it usually takes so long that the children's interests have moved on by their time the material is made; whereas if today I enter in my notebook, 'Roberto is fascinated by volcanoes', I will have the appropriate material ready by tomorrow.

It takes me a couple of hours each weekend to tidy up the schoolroom, to prepare new materials, or to record the children's interests in the card index, or to prepare other materials for individual or group work. Each time my hands touch one of the materials to dust it or put it in a more suitable place, a whole new collection of possible uses comes into my mind. These have in turn to be noted, so that they do not remain merely passing thoughts, but are ready for use on a busy school morning.

Visiting teachers from other schools find it hard to understand that we can 'teach' when the children are all following up their own interests, and when possibly each one is doing something different, or when small groups are forming without reference to the teacher. If I am to feel at home in this situation I must set myself everyday into a state of mind which combines the sharpest awareness with the most total lack of tension - for if I am anxious or

tense I am unable to assist the children's learning without communicating my tension. With the active system it is impossible to hide one's state - we are not working with neutral 'ideas', but with materials which form a natural mode of self-expression. Working with them, the children show themselves as they really are; and it is equally easy for them to see the way I work, and to read my mood in my every movement.

I do not always find it easy to accept totally the children's open expression of feeling without being offended or hurt. We have so long been accustomed to schoolchildren concealing their feelings, or only expressing them with extreme caution and one eye upon the teacher - and then adults are usually appalled by the outbursts of fury and quarrelsomeness and colourful language that come out in the open when children are left to themselves. In particular the behaviour of adolescents is universally lambasted: in the U.S.A. there are supposed to be organized groups of parents who have even taken up arms against their teenagers. It is only tentatively that an educationalist here or there voices the conjecture that all this anger and aggression have built up in the many years of enforced good behaviour. The endless sitting still, waiting to see what the teacher wants. and the effort of trying to conform in some way during all the years of enforced dependants turns our children into pressure cookers which, sooner or later, may well explode.

Within the active system we try to avoid this dangerous 'build-up; of suppressed feelings and energies. Their freedom to speak and move about brings 'active children' constantly into direct and often forceful contacts with their surroundings and with other people, and there is plenty of opportunity for venting the feelings that arise. Their games, and speech and writing bear witness to their fears and angers, their hopes and joys. We adults, who share their lives everyday, cannot avoid becoming aware not only of the children but of ourselves, our own fears and rage and longings for personal happiness. The children are not presented with some model teacher but with normal people who feel hurt when trodden on, and who openly say so.

Another, not always expected, difficulty is that the children do not always appreciate our ideas and devoted work as much as we might have hoped! Some of the materials that we lay out are ignored, and others used for purposes quite other than what we may have intended. 'Basically, we have to realize that children have a far greater need to play than one would have thought possible. Some of the play maybe reassuringly educational, but far

more of it is seemingly 'pointless' free play, in which our participation is superfluous or explicitly unwanted.

I have often had occasion to mention this free play; here I would only remark upon what conflict the sight of children absorbed in play at school can induce in the teacher. Recently, for example, one child had pulled up a radish from another's lovingly fenced-in patch of garden. The latter began to defend his property by throwing mud, and all of a sudden there was a full-scale battle, with all the children delightedly joining in, which lasted for more than an hour. Was it right to allow the children to 'waste' a whole school morning in this way? Would it not have been more appropriate to stifle hostilities at birth, so that the children could 'get on with something more useful?' Daily we submit ourselves to the discipline of writing down our observations from the classroom, and keeping a diary referring both to each individual child and the day's events in general. As we write and remember and think back we often find ourselves able to 'feel' about individual children or situations, and to understand connections that had not reached our conscious understanding in the morning's chaos. New ideas surface for this or that child, and we can take a closer look at our own mistakes and resolve to alter things where necessary.

In this way we learn to refine our powers of observation, both as to individual cases and to school as a whole. Instead of remembering that 'about ten children spent the morning gardening', we begin to 'see' each individual and to remember the impression he made, whether he took a leading role, perhaps, or imitated the others; whether he had arguments or how he set about solving problems.

Gradually we become able to divine the possible origin for all these different behaviours; whether they are following an essential need, in accordance with their inner growth, or whether they are acting 'at second hand', showing interest in order to attract attention or recognition from another child, or from an adult. How can we make it possible for each child to gain experience in those activities which correspond to his own 'self', and avoid the educational process 'cluttering up' the paths by which the child can find his own inner guidance in difficult situations? With time, children who habitually ask 'what to do next', or try to guess what would be required 'because parents and teachers know best', find it very difficult to find their own way.

The longer that we work with this active method, the clearer it becomes that this is not simply a modern school system which avoids certain problems and is thus better than the old ones. As Schumacher writes in 'Guide for the Perplexed', education can never be a 'convergent' problem that can be solved as soon as we can bring all its factors into logical concord. It is, rather, a typical example of a 'divergent' problem, since it is concerned not only with material conditions but with life as such upon various levels of awareness.

John Holt compares the 'new' teacher with a specialist travel agent. He does not prescribe the clients' destinations, but asks courteously what are their wishes and what might be possible; then supports them with his knowledge and his contacts, and helps them plan their journey. However, he cannot guarantee its success, nor does he see it as part of his duty to ensure that all the travellers follow all his suggestions. This comparison seems apt to me, in that it emphasizes the 'customers' freedom of decision and action - but it gives not so much as a hint of the extent of the responsibility that we, as adults, actually undertake, when it is not simply a question of a holiday but of the basis for the rest of the children's lives. Educators such as Pestalozzi, Rousseau, and others invoke the principle of 'love', through which the teacher is enabled to transcend all the contraries that would necessarily have to be resolved in a 'divergent problem'.

Our experience in the active school has taught us that it is not - as generally assumed - a question of two branches of knowledge, the material to be taught and the teaching methods (whose wagon is often hitched to the star of the latest fashions in psychology). Schumacher postulates four areas:- 1) my own inner self, 2) how others see me, 3) the situation within the other person, and 4) how the other person, or the world as a whole, appears outwardly.

Normally it is this fourth area above all that is considered in education: the 'body of knowledge' which we spread out before the pupils, and the typical reactions to the learning situation - which can be slightly modulated by various teaching methods. Rightly understood, Piaget's work already demonstrates clearly that teaching methods which take into account only the outer reactions to the offered stimuli (such as Skinner's machines for learning and all the other methods that have grown out of Behaviourism) are ultimately a hindrance to growth. If we as teachers wish to foster not just a mechanical learning-process but a living process of growth, we cannot avoid taking the inner self of 'the other' (in our case the child) very seriously. For

Piaget this inner self is the place in which the structures of thought- and understanding are formed. For Janov it is the source of all the feelings which unconsciously, but unavoidably, determine our actions and our being. For others it is the seat of a deeper - or higher - awareness which awaits its awakening and from which can issue such truly human actions as can leave all the laws of 'unsatisfied needs' far behind.

Only the adult who has already established the contact with his inner self can realize the Importance of such experiences for others, and make the appropriate space for them. The teacher has the same right to personal growth as his pupils, and must be ever open to explore new and interesting aspects of the world, thereby enhancing his feeling for and appreciation of life itself. A teacher who does not feel this 'openness' soon comes to feel that his 'work is a soul-destroying drudgery; but ever-renewed 'looking outwards' will have lasting value only if it mirrors the expansion of the 'inner space' which gives it direction and meaning.

Finally we should consider the second area, 'How others see me'. According to Schumacher, this area holds an important key to understanding, without which the other three areas can easily fall out of balance. Let us assume that we wish our work not only to provide us with a salary and a pension, but also to achieve something truly good and valuable. In the active school the children provide us with many and constant opportunities to assess our ideals and the true extent of our sincerity. Not only do the children give us covert signals about their genuine opinion and feelings about us and what we do (like the huge transmission industry that goes on behind the teacher's back in the traditional school, where there are even teachers who will perform the most complicated manoeuvres rather than turn their backs upon the class even for an instant). To the extent that we have managed to 'be ourselves' rather than playing a role for the duration of class time, the children, too, will be truly 'themselves' and show us in all openness what are the real effects of our good intentions.

I remember how last year I once arranged a beautiful still life upon a table, and invited the older children to have a try at describing it. When I put this forward they stared and frowned, and asked whatever was the point of that. I tried not to show my embarrassment (I had really thought that they would share my admiration for the still life) but, faced by several critical ten-year-olds I found it hard to find a justification. They must have realized my dilemma, for one girl remarked generously, 'I think it's stupid to describe

something like that, but never mind, I'll do it if it makes you happy!' The others agreed and wrote a piece of work that was perfectly acceptable, even if not anything like as alive as the pieces which arose out of their own interests.

Whenever I feel discontented in my work with the children, or 'out of sorts' or too easily tired, I ask what it is that has upset the balance of these four areas (something that I am able to do only when I am prepared to be totally in the present situation and to forgo any biased conjectures). My personality had been more strongly determined by my own schooldays than I could ever have otherwise realized. Below the level of consciousness lie the forty-five-minute rhythm and the vague feeling that real life will begin when I have finished this or that. It is astonishing how the many years of adult life: in South America, with its more relaxed sense of time, have not eradicated the habits laid down in childhood.

We adults have to become aware of living in the present, and to regain the ability to do so, before we can feel how natural it is for children. Our daily work in the active school can gradually teach us to 'live with the children' in this way; the difficulty still being how to draw the parents into this 'magic circle'. For parents generally send Their children to school 'to learn' all those things which will be useful to them at secondary school, at University, and finally 'in real life' - which for most of them seems to begin later on - 'so that they will make out, so they that they will become something, so that they will be happy later on'. This 'so that' indicates subliminally that we think we know what we are teaching or learning and to what end. But if we include all four 'areas' in our programme it turns into a plan for a journey into the unknown, for which all, teachers and pupils alike, are preparing to embark together.

16: Education Or Therapy?

Some years ago I was teaching music in a traditional school. It was a constant source of amazement to me that the teachers in other subjects were able to talk of average marks, achievement graphs, and problems of behaviour, without allowing anything of the children's personalities to come over. I spent only two hours a week in each class and would have been glad to know more about my pupils; but most of the teachers could only tell me

about those who were especially good, or especially bad, at their subject, or who had drawn attention to themselves by being a nuisance in class. Staff meetings saw most of the children characterized only by a number with two decimal places, to be rounded up or down by the majority opinion. Once a class-teacher brought the term's marks for a twelve-year-old, showing a sudden deterioration in comparison with previous terms. The Vice-principal immediately composed a warning recommendation that this pupil must do better if he was to remain at the school. (Here in Ecuador, the 'good' schools allow themselves the luxury of a biennial ejection of all pupils who do not keep up academically or whose behaviour falls short of the desirable). The class-teacher then spoke up, requesting that this child's particular circumstances be taken into consideration. His father had just had a serious motor accident and was now crippled for life; she presumed that this lay behind the deterioration in the boy's work. Would it not be better to wait with the warning and give the child time to re-establish himself? The answer was succinct: 'We are an educational establishment, not a therapeutic one'. The warning was entered in the child's report and at the end of the year he left the school.

In the kindergarten of another private school in Quito a little girl threw a stone at another child. Blood and tears flowed; the mothers were summoned. On the one side, to the hapless teacher, 'How could you allow this wicked girl to hurt my poor child?'; and on the other, to the delinquent four-year-old 'Why are you so wicked?' The tempers cooled only on the assurance that the stone-thrower would be expelled immediately. So are there only good children left in the private schools? Where do all the naughty ones go?

One young teacher who attended our summer course brought us the following figures from the private school in which she worked- of the fifty-six children in the two first classes (aged six or seven) thirty-one were undergoing neurological or psychological treatment, and of these seventeen were regularly being prescribed tranquillisers.

In Ecuador one of the first priorities of the government's programme is bringing literacy to the country districts. Compulsory education can only rarely be enforced, but the specialists in the Ministry are already concerned to refurbish the existing schools with 'learning centres' such as are seen in more developed countries. These special centres are not for the handicapped, but for clinically normal children who are either 'disturbed' in their behaviour, or inexplicably 'blocked' in some area of learning. Since the

teachers have their hands full keeping up with the syllabus and maintaining discipline, they urgently need help with children who have difficulty in adjusting, and there is a steady growth in the demand for psychologists, neurologists, or specialists who are able to impart the necessary material even to 'blocked' children under special conditions. However, we know from what has happened in other countries that children thus singled out soon feel that they have been 'labelled'; in addition to which, the references to their difficulties are incorporated in all their reports until they leave school. To me, the consequences of this selectivity seem problematic, and not only for those who are written off as 'different' and perhaps have to become accustomed to taking tranquillisers from kindergarten age onwards. It is also tragic for the 'normal' children, the 'good' ones, who learn systematically to 'do the right thing' and 'avoid the wrong thing'. Certainly young people all over the world are rebelling against this long-established 'image' - but many have learnt only that they are 'agin it' and not what they really stand FOR. After all those years, how are they to find the way back to themselves and their own direction? They have early become accustomed to look outside themselves for direction and guidance, and lack the secure knowledge as to whether and when their own compass is truly reliable. So as young adults they run with this crowd or that crowd, rail and fight against this or that, and seldom find their own way in their own lives.

Ultimately, who decides which children are 'normal' and which need treatment? And whence this pressing need to isolate the 'different' or the 'difficult' and send them to the specialists? In the villages here the handicapped join in everyday life, taking over certain tasks in the home and forming part of village life in general. But in our cities they are generally segregated and given 'special treatment'.

Between the host of varyingly 'handicapped' children and the 'normal' ones who fit in with the dominant educational culture, there is a growing number of 'walking wounded', whose problems acquire new technical names as they are discovered by the specialists. In the secret information cards, to which in many places parents are refused access, appear, from kindergarten age onwards, terms such as 'specific learning difficulties', 'behavioural disturbances', 'minimal brain damage', 'hyperactivity', and the like. Peter Schrag and Diane Divoky have exposed this last for the myth it is, and shown that the number of children who do not exactly correspond to the general norm and thus stand suspected of some ABNORMALITY, is

steadily growing. Estimates vary, and affect between 10% and 40% of the entire school population the U.S.A.

This study shows clearly that in most cases there is no proof of organic or psychological disturbance. A child has only to 'fail to adapt' to the required pace of learning, to maintain strong personal views, or even not to sit still in class, to be referred to a psychologist or a specialist. The number of children who spend their entire school lives taking tranquillisers is also rising, not only in North America but also here in Ecuador, where the whole aim is to ensure a happy future through education at a 'good school'. Are these school-related illnesses the product of the growing number of specialists, or are the latter called into being by the increased incidence of 'sickness'? One thing is quite certain; children who come with the Label 'hyperactivity' or 'learning difficulty' from a traditional school to an active school often lose their symptoms within a week!

Another cause for concern in Ecuador is the number of children who, despite their 'normality', are still not 'normal' enough to submit without damage to the requirements of the primary school, or even the kindergarten. The private schools in Quito use tests to select eighty children from the four-hundred or so applicants for their kindergartens. Of these eighty, the fifty 'best' reach preschool; and of these fifty, thirty attain the first-year infant class. I am talking about children from well-placed families with no nutritional or similar difficulties. Already at the age of five, these children feel themselves to be 'selected' or 'rejected' - very questionable bases on which to build a young life. These 'rejected' find a place at a less sought after school; but for children from the poorer strata of society, if they are sent to school at all, there are added disadvantages - problems with malnutrition, lack of the most basic culture; and if they are not selected first time round there is no second chance and they will only add to the numbers of those who have no hope of a share in the country's development.

In 'Compulsory Miseducation', Paul Goodman suggests that in times past this would not have been so great a disadvantage, that in all aspects of life some of the most outstanding contributions were made precisely by these 'drop-outs'. For those who had not scaled every height of the then far less widely spread school system there were still various other ways. Now it is different; there is practically no path to happiness, success and the fulfilments of all wishes that does not run through 'that one blessed and blessing mother, school'.

And it is in this compulsory institution that early, much too early, the lines are laid for an entire life: time. The problems are soonest obvious with children who have suffered deprivation in their early years. With many it is a question of problems before birth, with others the results of an unnatural delivery, loveless treatment as small children, or all the insecurities which little children have to bear alone because we adults live in our world and do not understand their true needs.

But even children who came to school with the highest expectations, brimful of energy and curiosity often present all sorts of worrying symptoms after a few years – from general school fatigue, slackening of concentration and curiosity, to headaches, bed wetting, stomach upsets, frequent colds – and even attempted suicide. Between these two extremes we find all the nuances of irritability, lack of self confidence or enjoyment of life, aggression, cynicism and all the other possibilities that overshadow life within the family and in society generally. Even if we allow that all these are general and widespread elements of our civilized world, school seems to be the place in which they are systematically fostered.

One example is the increasing incidence of the problem known as 'legasthenia' or 'dyslexia'. In his introduction to the school printing press, Hens Jorg remarks that in schools which use this method there is no dyslexia. With the printing press the children often stand up at the work, move around, feel the letters with 'their finger tips, set or take apart printed sentences and, as well as having the chance to talk animatedly amongst themselves, carry out a whole series of practical tasks which appeal to all the senses and allow the child pleasure in his own activity, and in seeing the results of his efforts.

Here we come a little closer to the heart of the problem. Our experiences in the active school have proved sufficiently, that it is possible to educate handicapped and normal children, and children of varying temperament and intelligence, in harmony together without exercising any kind of selection. In addition we continually find that children with all sorts of 'minor damage' who in a traditional school would either have been referred to specialists or shown the door, can find a 'space' which allows their positive traits to come and gives them the chance to attain peace and eventual recovery. In the active school children are not compelled to behave in a way that is against nature. Sitting still, and speaking only when spoken to, is possible for

children of school age only if they suppress their natural inclinations, and for those who are already 'under pressure' it is the worst thing that could possibly be imposed upon them. As Piaget tells us, freedom to talk and to move about are absolutely basic for the development of healthy thought structures, and a positive approach to reality can develop only to the extent that the basic needs have been respected. Egocentric behaviour lasts as long as the pressure of unmet needs continues. Freedom of movement is indispensable at this age, as a therapy for suppressed emotions and a way of establishing a lasting bond between the structures of thought and of feeling. At this age there is no possibility of separating the emotionally laden expression (and protection) of the personality from intellectual concepts; so school should afford the children the permitted and constant opportunity to get rid of inner tensions, whatever their origin may be - and for the same reason we should absolutely avoid being the cause of any more. We have no doubts at all about this - if we not only allow but continually encourage the children to move about spontaneously and in their own way, the school is thereby uniting the educational with the therapeutic.

Another beneficial factor is implicit in this free interaction with things and people. Whereas in the traditional school, children and adults are forced into continuing juxtaposition - the child is exposed to an uncongenial teacher for a whole year, and the teacher has likewise to cope with the same difficult pupils until the class moves on - in the active school this inescapable 'face-to-face' becomes a triangle. Children, teachers, and the 'prepared environment', or 'material', work together or side by side in a dynamic situation. Everyone has the choice to seek the others out or to avoid them for a while. Let us imagine that we have been placed with a child in a totally empty room: here is a potentially embarrassing situation, in which the adult has to approach the child directly without any help - but if we have some object or toy with us which arouses the child's interest, it will not be long before the child is inviting us into his own magical world.

We experience daily that children 'forget all their sorrows' and 'heal themselves' when they are able so to lose themselves in an activity of their own choice with things that continue to hold their interest, and to reach so high a level of concentration that, even if only briefly, they feel at one with the universe. This feeling of being at one - generally long buried and forgotten by us adults - is the magic potion that can heal all the pain of childhood; but its secret formula must be discovered by each child for

himself, and it must be he himself who prescribes and administers it. We adults cannot find it, or give it, from outside.

What then is our role as adults in this therapeutic – cum educational process? It derives from an altered attitude which enables us to accept any sort of behaviour as 'normal', in the sense that it is the intelligent response of the child's organism to the conditions under which it lives. If we want to alter this behaviour, because it is too difficult for others to tolerate, we must first alter the environment, the 'conditions', and leave it to the child to find new and more generally acceptable responses to these new 'conditions'. We approach each child with unconditional respect, and let him feel that we accept him, even if he himself feels torn apart by inner conflicts. If we have to admonish a child, for the sake of the other children, or the materials which all are using, we try to draw him towards us and embrace him if he will allow it. In this way he feels accepted as a person, and will find it easier to understand the correction as applying to his unsuitable behaviour rather than as attacking him.

If a child is very reserved and distrustful with adults, we begin by simply offering him the opportunity to do interesting things by himself, or perhaps with other children. We try to establish contact without threatening his integrity, through glances, light touches in passing, or the odd friendly remark. Now and then we remind him, 'If you need me, just call'. One seven-year-old needed a whole year before he felt able to call me and happily show me what he had been doing! Our readiness to 'Play silly games' is a help towards establishing a contact with even the shyest children. Perhaps they stand by open mouthed when another child actually knocks us over - and we can see in their eyes that, secretly, they would like to do the same. Later we daringly approached with some little gesture and invite them to join in, without actually touching them; and gradually a feeling of trust builds up. It may take weeks, or months, but one day these children too will emerge into a joyful openness with the world and their fellow-beings.

Freedom of movement and a 'safety valve' are of the greatest importance for aggressive or 'hyperactive' children - but for them it is not always enough to dig away in the garden or kick a ball around. One seven-year-old, given a carpet-beater and mattress to work off his fit of rage, yelled out, 'I don't want to hit the mattress! I want to hit someone!' He needed a strong man who could have a proper fight with him - but a fight that ended, not in more guilt and confusion, but in a loving embrace. After this improvised therapy the

boy wept for a long time in his new friend's lap, finally saying through his tears, 'All grown-ups are liars, liars, liars

Every year it happens that one or two children - generally from families who lack for nothing - are little thieves, stealing their friends' packed lunches, or school materials or things from the office. When, generally because of complaints from the other children, we become aware of these tendencies, we not only try to be friendlier to the little miscreants, but also keep ready a special basket with fruit and biscuits and little oddments. Now and again one of us will call the little thief and, under the promise of strictest secrecy, and with a little cuddle, give him a tiny present - a shell, a couple of marbles, something to eat, according to what the child's chief need seems to be. This 'treatment' is usually successful. The child gradually comes to feel loved, accepted and unexpectedly showered with gifts. A connection is made between his authentic need for love and acceptance and his substitute solution of satisfying the unmet needs by stealing. Through acceptance, rather than punishment, he finds the strength to change his behaviour, and to make real friendships.

Thus the presence of an adult gains a new significance - not that of the doctor who makes a diagnosis and prescribes the appropriate medication, but more that of a guardian angel who creates new and more helpful conditions for the children, in which they can find themselves and build themselves anew. In the process the adult is available if the child needs help; but he does not determine the course of events from without. Each new stage of development is preceded by a separation from former familiar ways of being, and this is usually accompanied by pain. Here another person who has come through similar experiences can provide a background security, without depriving the child of the wonderful feeling of new personal triumph.

Thus the classroom can, and must help the growth of all the children, the healthy and the sick. In special cases, on which I shall report briefly later, temporary individual therapy has been needed. But here are a few examples of children who came with difficulties and have been greatly helped by the active school environment.

Santiago came to us at the age of six, having been described by three kindergartens as hyperactive and dangerously aggressive. Before we had had time to blink on his first day, he had strewn a large amount of the teaching

materials around the school ground, opened the rabbit hutches, chased the llamas, kicked the dogs and cats and most of the other children, and soon lay exhausted and weeping in the teacher's arms, which was where he now landed every time the world threatened to fall in upon him. Otherwise he had some positive experiences in a huge heap of sand, did all sorts of exciting things with water, bridges, mud and stones, hunted for insects, climbed trees and played football until he was worn out. Later on he lovingly laid out a little garden.

When he began to feel interested in different types of materials, he made a pebble collection, and spent three weeks building boats of balsa wood and floating them on the pond. Gradually his movements became less hectic. He would spend a quarter-of-an-hour a day in the print shop, and learnt to read fluently. The arithmetical Montessori material fascinated him as much as it often frustrated him and the many beads and chains flew high through the air. Slowly more orderliness came into his behaviour, and then he decided to convert as quickly as possible to working things out in his head so as not to have to deal with all the materials. It can easily be imagined that his social behaviour improved notably and he soon became a sought-after companion for all the other enterprising little boys. Now if one of the children falls over, or gets stung, Santiago is the first to come with comfort and help; not surprisingly, because he knows from experience what it is to suffer

Soon after his arrival we were able to talk to his mother. It transpired that she herself had been prescribed tranquillisers since the age of fourteen, to help her take life more easily. She had always considered herself an intellectual, and had married a sociologist. When Santiago was on the way, she had been bitterly opposed to the pregnancy, and for two years after the birth she had felt considerable resentment, and dislike for the child; she vividly recalled occasions upon which she had beaten him ferociously for no valid reason. A psychologist tried to explain the harm her attitude was doing to the child, and after that she and her husband were trying very hard to give him 'positive attention'. However, probably because of the tranquillisers, she is still very inhibited about any direct expression of feeling; she devotes herself to the child in an intellectual way and encourages every sign of intelligence. So Santiago has been fighting since the day he was conceived for the right to be himself.

Another child who would long ago have been sent off to the specialists by a traditional school is Alba. When she arrived at school at the age of four she

was quite used to the role of the naughty one of the family', and never tired of fighting against everything and everyone. She was a perpetual disturbance, broke everything and would never play happily by herself as most four-year-olds do. The ample opportunity for practical activities allowed her behaviour to become more bearable, but she was still far less harmonious and more changeable than any of the others. When she was six her elder sister, who had attended the kindergarten and then gone to another school, returned to join the primary class, and Alba's behaviour deteriorated dramatically. In contrast to the sister, who was a model of tranquillity, Alba, at the age when other children were learning to read and write, was unable to sit still for five minutes at a time - yet in all the practical projects she often displayed considerable care, concentration and stamina.

During these years we saw the parents frequently, and it was learned that Alba had been born with a hip defect and had had to spend the first two years of her life, night and day, with a cushion between her legs. At the time, her parents were very busy with their new hardware shop, and when the child was impatient with her uncomfortable situation, which hindered her in crawling and walling, they thought she was 'being naughty'. So in addition to her physical restrictions, Alba grew up with the feeling of being an unwanted newcomer, in contrast to her good sister. When the parents began to watch Alba's spontaneous activity at home, they were astonished to note that her favourite pastime was to lie in bed and wave her arms and legs about like a baby, thus catching up on what she had been unable to do during her first two years. Gradually she began to feel secure that at home as well as at school her needs would be respected and she would not be pushed into academic achievement and soon she was showing interest in everything that could possibly be learnt. However, when the parents noticed this they wanted to encourage her to progress more quickly - and immediately she took refuge in a reversion to her old rebellious self. Again we had to convince the parents that the most important thing for Alba was a full measure of love and unconditional acceptance, and that only this would give her enough security to be able to learn like the other children. Since then she has learnt to read, and now takes a fresh library book home each week.

Freedom of movement, and the experience that the child's decisions within the prepared environment are fully respected, have good results both therapeutically and educationally. The most important part of the process is free symbolic play, which is expressly encouraged by all our teachers because it provides a healthy play therapy for sick and well alike. Children

who have forgotten how to play in this way need to be encouraged, before they can dare to fill in, in our presence and in school time, what they have missed out on. The older the child, the slower and more hesitant the decision to join in, but no child under the age of twelve can resist the possibility for very long. If we adults are around at the time, our respectful observation, listening, and sometimes reflecting back, are an additional reassurance enabling them to play out their personal problems and thus to liberate themselves from them. It is true that in the active school we have much else to do, and cannot always give an optimal amount of attention to this aspect; so in special cases we have reached an agreement with the parents that we will offer individual play therapy in the playroom. This type of non-directive play therapy had been described in detail by Virginia Axline. Although information from the parents, and from our own observations, has shown us some aspects of the child's problem, we make no diagnoses. It is important that the child feels able to express himself freely in play; the adult often only repeats (without comment) the child's words and actions, and allows the child to go as far with his self-expression and his own analysis of the situation as his own integrity allows.

David, sent to us as 'hyperactive' at the age of nine, showed only slight improvement after several weeks. He could not stick at anything for longer than ten minutes, and was perpetually trying to torment and disturb the other children. So we agreed with the parents that we would try play therapy, to be underpinned with regular discussion with the parents. In this way, in instalments, a previously well-kept secret emerged. Until the age of five, David had been a tranquil, normal child; so normal in every respect that the parents had been quite happy to consign him to the care of a nursemaid and get on with their own lives. When David was five, the nursemaid committed suicide before his eyes. When the parents returned home they were just in time to drive her to hospital to die.

Shortly afterwards David lost the power of speech and seemed perpetually terrified. A psychologist recommended a school for disturbed children, and there David gradually regained his speech, but his behaviour became ever more unbearable. He could never be left alone, tried several times to throw himself under cars, and in general seemed to be becoming more and more crafty.

After five sessions of play therapy David was able to express through puppets what had been going on within him during those past four years.

Just as every normal five-year-old is convinced that he is the source of all the events around him, so David had had to live with the unbearable conviction that he had killed the nursemaid. His guilt was compounded by confusion as the parents tried to invent stories about her disappearance, and in this way prevented him from being able to confide his misery. As the play therapy continued, David played out his 'guilt' through all sorts of new versions. Unobtrusively his hyperactivity ebbed away, and in the school's free atmosphere he was able to find new ways of working off his inner tensions.

We often wonder whether the active school, with the chance it offers to the child to restructure his attitudes and behaviour, is only of use when conditions at home can also change to correspond to his needs. Despite all our efforts, many parents are unwilling, or unable, to make such changes. But it seems to us that even when (I child returns daily to a harmful situation at home, and when the active school has to serve him primarily as a place for therapy, his positive experiences here give him a strength which enables him to cope better at home. At the very least he can see that life is not a closed cul-de-sac, that there are ways round and ways out, and we hope that his time in the active school will give him the courage to go on searching for alternatives throughout the rest of his life.

17: Looking Back, Looking Forward

More than five years have gone by since, chiefly for our own sakes, we founded an insignificant Montessori kindergarten in Tumbaco. Its 'only begetter', our second son, has just had his eighth birthday - a child who learns slowly but thoroughly, with very much a will of his own. Just recently on discovering the rules of phonetics for himself, he put things this way:-

'Up till now I only saw the letters with my eyes and wrote them with my hand, but now I have learnt to make them sound in my heart!'

In these past few years we have come into contact with a number of children and their parents. Often it has been only a fleeting acquaintance, and we cannot know whether the short time at Pestalozzi has had any influence upon these people's lives. Others stayed longer with us and then regretfully chose

to find another primary school because our tiny alternative was too new and too insecure for them. A small number of children have been with us since the beginning and intend to stay for the rest of the primary school years. Others have joined them and have tried in these years to learn how to be themselves.

If we attempt to compare - as neutrally as possible - children who have spent at least a year or two with us to children from other schools, we are struck by various differences. We see that the Pestalozzi children show a natural confidence, in contrast to the bumptiousness or overdependence of the others. And, though this may appear contradictory, we see that on the whole, active children retain a certain childlike quality for longer. They continue to play symbolic games long after the age of ten, ask numerous questions, and seem not at all inclined to behave like miniature adults. If I try to sum up the results of my observations in a phrase, it is - they show the dignity of childhood.

'Active children' always find something interesting to do. This is the first difference noticed by parents whose children come to us 'in midstream'. Whereas before they had often been bored and in need of entertainment - TV, cinemas, wandering around town, organized parties, toys and clothes - after a few weeks in the active system they rediscover a pleasure in simple things, and never lack for some self-chosen activity. They make friends more quickly with other children and enjoy inventing new games. At home they play with what is there, or with sewing, making things, cooking, washing or helping mend the car.

Children who used to dislike books turn into little bookworms. Just as in early childhood, they begin to explore their environment, to think their thoughts about the world and to share them with others. I myself notice a particular difference in the way the 'active children' move. It seems more harmonious, more purposeful, and more controlled. This is not surprising when we remember that they are accustomed to moving about freely in a space full of all sorts of objects, to touching and holding them unrestrictedly and moving them from place to place, whereby learning to organize their own thoughts and feelings. In comparison, the movements of children who have been compelled to sit still for several hours a day seem uncontrolled, or even destructive. A small number of children from other schools, perhaps visiting with their parents at the weekend, can in that short time create more

chaos in the classroom than the entire complement of our lively primary department. The experience has taught us to lock up carefully it weekends!

Another easily noticeable difference is that the 'active' children seem more peaceable and respectful among themselves. Differences of opinion are, almost without exception, sorted out without fuss or appeal to adult authority. The frailties of others are accepted, as are social or racial differences. A natural readiness to help those who are younger or weaker is a sure sign that children are at peace with themselves and their surroundings and have no need to work out their own bad feelings upon others.

Not least important is the fact that 'active children' are not so easily thrown off balance by difficult situations. Our neighbour was full of admiration for her ten-year-old daughter. She said, 'My mother came to us for a visit. She is one of those elderly people for who nothing is ever right - she complained about the food, the baby's haircut, the IL furniture and the untidy kitchen, and set us all so on edge that we sat biting our nails and quarrelling because we could not cope. Of course Grandmother complained about Megan, who was trying out recipes from her children's cookery book, as she usually does. Amazingly it was Megan who summed it all up (I could not think of anything further than putting the old lady on the next plane to Guayaquil) and found what to do. She asked her grandmother to teach her the most well-known Ecuadorian recipes! Grandmother was absolutely delighted; the two happily fetched the ingredients from the market, and spent every possible moment in the kitchen together. Grandmother came alive and laughed like a young woman; every day was a gastronome's delight. But best of all was that Grandmother had finally found an honoured place in our incomprehensible modern household.

The active method alters not only the children but us adults too. We ourselves can see a clear change taking place. At the beginning our motives were actually quite selfish - we wanted to spare our second son the inconveniences of traditional education, and to pursue a satisfying occupation that was in line with our own talents. In doing this, we unsuspectingly touched upon a whole collection of widely felt needs which were thus brought out into the light of day. There were parents who were looking for a school in the country rather than the imprisoning city; parents who, like ourselves, had realized the dangers of the traditional system and wanted something different for their children; parents whose children were in some way not able to attend ordinary schools, but, for a variety of reasons,

not suited to special schools either; foreign parents who hoped that their children could integrate with Ecuadorian children without losing their own cultural identity.

First of all we had to prove that an open school is possible not only for rich families, but also for poor ones. And, importantly, that in this culturally divided country it is possible to have integration that respects both elements, that is not forced 'from above' by some propagandising Government programme, but that genuinely grows from living together.

The longer we worked along these lines, the clearer it became that this was a question of a gigantic social problem, that came at us from all directions. We had to learn to plan day by day, to do as much as we could, without becoming depressed about all that still remained undone. We gradually became accustomed to living with uncertainty; we erected prefabricated rooms on rented land which might at any time revert to the owners; we could never be sure from one school year to the next whether the minimum amount of money would be left over for the project's survival. Additionally, in Ecuador the government can change (and with it everyone's circumstances) from one day to the next, like a sudden explosion. As I write, the prices of maize and petrol have been raised 120 % and this has unleashed a destructive fury throughout the land. An enormous expensive bureaucracy has to be maintained at all costs, because the general school system releases into the general bloodstream thousands of people each year whose primary skill is to sit at a desk and push papers around.

We have had to learn to cope with the inspectors from the Ministry of Education, who wanted to force us to adapt our methods to the established norm. It has been our basic principle that we would accept official recognition only when the Ministry would guarantee the basic tenets of active education. In the three years in which the school went ahead without recognition we accustomed ourselves to doing without outer security, and seeking our own certainties. We collected material to supply the necessary theoretical background to our practical work, and learnt daily to 'keep a finger on the pulse', both our own and the children's, and to allow our ideas to be corrected by reality. In this process we attached increasing importance to the co-operation of the parents, and spent far more time with them than is generally done.

Changes of all sons came at us. Often we had to take decisions on the basis of immediate intuition and leave analytical consideration till afterwards. The most difficult thing was to free ourselves from the fear - a legacy of our own education ~ of making mistakes, and to learn to have faith in the possibility of learning from them and transforming them into fresh opportunities.

As I write, we stand at the beginning of a new school year and a new stage in our work. The primary school building has again become too small. and the children have had to be 'thrown together' more than ever. The workshop is busy producing shelves, chairs, tables and teaching materials for our growing population. A group of kindergarten teachers is attending a course here, and we have an extra assistant to help us with the older children.

The Ministry of Culture has designated the Pestalozzi Kindergarten as the model for the nationally introduced educational reforms. Bus-loads of kindergarten teachers from all over the country are streaming through our rooms to see with their own eyes this 'new method' - which consists simply of letting children be children. The employees of the 'Casa de la Culture' and the museum of the 'Banco Central de Ecuador' have been assigned to a month's course here, to reinforce with new, active methods their efforts to bring culture to the country's children. Many of the directors of the various departments of the Ministry of Culture have also asked to attend so as to be in touch with the 'latest developments'.

In October 1982, we handed the Pestalozzi schools over to a foundation which has since been officially recognized and designated 'Fundacion Educativa Pestalozzi'. The advisory board consists of ourselves, six parents and one teacher, representatives who have shown great understanding of the task before us. For the first time we have clear proof that we are not alone in our efforts. The aims of this Foundation cover a wide field. Many have been acknowledged and partially realized; others have until now existed only in our imagination, and have not been pursued for lack of finance, time and personnel. Many of our plans will be feasible when enough people of like mind join their knowledge and skills to ours. The following aims were formulated in our first discussions:-

1. Purchase or long lease of suitable grounds to make possible uninterrupted activity and more permanent installations.

2. Building the necessary classrooms to accommodate the needs of the growing school.

3. Purchase of teaching material for the higher classes.

4. Extension of the parents' and teachers' lending library by specialist Literature upon education, psychology, therapy and sociology.

5. More scholarships to Pestalozzi I and II for poor children. These five points apply to better functioning and growth for the already existing kindergartens and school, which now, as previously, am to continue as centres and models for the active method. The following points add new aspects as yet only partially included:-

6. Courses for parents and teachers.

7. External courses for Ecuador and other South American countries.

8. Support for other kindergartens and schools wishing to transfer to the active method. 9. Establishment of a health centre for preventative medicine (natural medicine, homeopathy) for use in the care of the Pestalozzi schools, and other interested centres.

10. Employment of specialist teachers, and establishment of a connection with the university medical faculty, so as to care for a larger number of handicapped children.

11. Building of an 'Indian hall' which is to be given the same status as the other classrooms and, like them, will invite to various activities, in this case based upon the cultural elements of our native Indian cultures. Indian teachers will be able to practise, and to offer to teach the children, traditional Indian dishes, pottery, woodcarving, wool-carding, spinning and weaving, embroidery, basketwork, and other skills and arts which, like the Quichua language itself, are currently in danger of being extinguished by the spread of Western civilization.

Literacy programmes are constantly trying to open the gates of Western culture to the Indians. But we think that true integration will be possible only if it is a two-way procedure that does not only require a one-sided adaptation to Western culture on the part of the Indians. We are certain that children

who have had the opportunity for a living experience of Indian culture over some length of time, and been able to make Indian friends will not despise this culture later on in life, but will help it to thrive again.

12. Our existing atelier to be extended and re-organized to produce more teaching materials on a broader basis.

13. There are plans for an 'active' secondary school, to include ateliers, shops and a smallholding, which can give the young people contact with real work processes, including their artistic and technical aspects.

Despite all these projects, we are under no illusion that an active education, based on respect for the individual, free choice and self-realization, would revolutionize the existing educational system to any great extent, because the existing system is obviously indispensable to the creation and maintenance of an industrial society.

Why then do we expend so much energy in swimming against the stream and creating an alternative? The strongest motivation comes from the children themselves, who are currently in our care and who infect us with their vitality. How could we simply allow them to spend 'the happiest days of their lives' in joylessness, inner and outer tension and -t nervousness, perhaps even in destructiveness and rage? We would Like to prove that there are valid alternatives to 'pushing' children by means of threats and promises. The question continues to plague us - are: the 'stupid' or 'resisting' pupils who do not 'make it' really so incapable of living a full and worthwhile life! Are the successful stars of the class really able to give our culture any meaningful renaissance?

The appendix of Herbert Kohl's 'On Teaching' gives numerous research data about the later lives of pupils from alternative schools; these prove that, in adulthood, 'alternative pupils' not only achieve normal professional competence, but also are, on average, happier in their personal and family lives than pupils from other schools. In addition, they show markedly greater interest in new areas of study, and sense of social responsibility.

When A.S. Neill, the founder of Summerhill, was asked in old age about the fate of his former pupils, he is said to have replied, 'None of them has become just one of the crowd.' However, we hear from Spain that at the beginning of certain tertiary courses, pupils from active schools have been

said to be insufficiently prepared. As yet we do not know the details, as to which schools and which branches of study; but after our short experience with the Pestalozzi children we can well imagine that they will later distinguish very critically which problems are genuine and relevant and which irrelevant and artificial. We already see that they baulk at wasting energy upon things that seem false or artificial to them. We see that, although they are capable of deep concentration, they never become obsessed with just one thing, but always remain open for something new, and welcome unexpected aspects and points of view. The fact alone that many of them grow up bilingual, and meet daily with a multiplicity of cultures! languages, social and personal differences, prevents them seeing or imagining a uniform world, or thinking that relentless study could ever build a totally valid opinion about things or people.

As to the recurring question 'Will children from a free school be able to adapt to the outside world?', there is certainly no simple answer. As far as we can judge as yet, they will in any case be able to handle difficult situations, and tolerate stress, better than people whose growing up has been full of tensions and unfulfilled needs, and whose accumulated pain is liable unexpectedly to break all dams when things are difficult. We think that 'active children' run less danger of resorting to the various available drugs to make their lives beatable, through inability to live with the rising tidal waves of their own feelings. They will certainly have a good chance of striking up, and maintaining, satisfying human relationships. Since their early learning experiences are not interwoven with pain and tension, they will remain interested and eager to learn long after their formal education is over. However, we also foresee difficulties ahead, because young people who have grown up on freedom will have a very clear instinct for what endangers their way of life, will avoid ways of learning and working that run counter to their sense of what is fitting, and, if necessary, will fight to protect their personal integrity. They will look critically at promises and propaganda, and probably be prepared to dispense with comfort and privilege if the price is too high. They will insist upon respect, both for themselves and for others, and not tolerate any other approach.

But we also hope that it may fall to them to solve what seems to be the most pressing problem of our times - to be able to see alternatives where others can find no way forward. Few people now can persist in the illusion that we live in a golden age and have all that humanity needs for its constant progress. Ten years ago everyone in Ecuador wished to participate in this

progress and share in the good fortune of the industrialized countries. But today we too are beginning to sense that the price of this progress is very high; many of us would prefer to turn the clock back and exchange the advantages conferred by technology for the relative peacefulness of a more primitive way of life. Young people from the developed countries come here in great numbers to look for a 'simple and happy life'. But the apt words of a famous anthropologist about the fate of Indian cultures apply to all of us: 'We have shattered their clay pots and are now trying to reconstruct them from the fragments. But the content has been lost and the life cannot be brought back.'

Many readers who have followed the story of our active school in Ecuador may conclude that such an enterprise is only possible in a country where there is still space and freedom of movement, and where rules and regulations have not infiltrated every area of life. But there is a disadvantage here - the general tendency to avoid any kind of effort and to follow the path of least resistance. The ability to put personal interest aside and embark upon a communal task is less developed here than in other countries where people are accustomed to organize themselves voluntarily into groups in order to work together.

18: Four Years Later

It is 1986. Some of the children about whom we have written in this book now attend traditional secondary schools. They are among the best pupils in their classes. Since I wrote the final chapter many of our plans have become reality; others, such as the Hall for Arts and Crafts in which Indians from the various provinces would practise their skills, and teach them to our children, have not yet been able to be financed. The primary school now has a small extension, in which the older children, who now work more with and from books, can sometimes retire away from the lively activity of the little ones. It also has a comfortable corner where children preparing for the entrance examinations to secondary school can study in a relaxed fashion using the Losanov, so-called 'Super-learning' method.

For the last three years we have offered the over-ten's a new and much-liked programme. Each month they go, usually in pairs, 'to work' for three days on a vegetable farm or a car repair shop, a restaurant, supermarket, hairdressers,

ironmonger's, office, health centre, factory, printer's or potter's. There they are allotted work that allows them to make the acquaintance of as many different aspects as possible of this adult world over the three days. Many, especially the more sheltered girls, learn to cope for the first time with public transport. They meet with strangers and new situations, learn new ways of working and see afresh 'the other side of life'. On the fourth day, when they return, they tell each other about their experiences in a special session, and also write reports, which are collected together and can be read by anyone wishing to gain information from the experience of his predecessors about the next work placement.

For the last three years Indians from various tribes, principally Saraguros, Salasacas and Otavalos, have sent their children to us at Tumbaco. The parents have been working at the Catholic university in Quito, developing teaching materials for dual-language (Spanish and Quichua) schools. If their children were to attend the government schools they would have to wear uniform and behave like city dwellers. It is very important to them that they can attend the Pestalozzi schools in their traditional dress, including the boys with their long pony-tails. A Saraguro teacher, now a permanent member of staff here, sees to it that these children are able to speak and write in their own language.

Their parents are becoming increasingly aware of the advantages of the active method, and realizing that the school problem is not simply, for Indians, a question of language, but something far deeper. In the usual educational system the children are cut off from their natural activities by the enforced sitting still, listening to the teacher, and dealing only with books and papers. The next step, if they stay to the end, is almost automatically to look for work in the city and forget the problems of their own community. With us, on the contrary, they are strengthened in their awareness of themselves as human beings and as Indians. They learn in tangible situations and with materials that do not alienate them from their own natural and social environment. And we see the miracle, that in Ecuador seems like Utopia, - white and Indian children becoming friends on equal terms, respecting each other, learning together and learning from each other.

Three years ago, at their request, we trained five Saraguro teachers here in our methods. The plan to found a model school in Saraguro could not come about, for lack of money; but in August 1985 the teachers of three purely

Indian schools in Saraguro and nine teachers from Chimborazo, attended a practical course so as to make fundamental changes in their schools, in the direction of 'active education'. Teachers from Otavalo and Salasaca have requested a similar course. Last Christmas we were invited to Saraguro to discuss the first experiences of the new system with teachers and parents; and there has been a special result, because a Swiss parish has 'adopted' this project and is prepared to support it over several years. This support opens up the possibility of establishing training centres and acquiring more materials. We also hope to use some of the money to pay two people to collect and write down some of the sagas and stories from the Saraguro oral tradition, so as to provide interesting and appropriate reading materials for these schools.

After various changes, the governing body of the Pestalozzi Foundation consists exclusively of parents who have selflessly committed themselves to the survival and development of this 'Indian programme and are completely in accord with our ideals - that this school should not only make a better experience possible for fee-paying children, but should also show the world that children from different races, cultures and social classes can live and learn together. This governing body made it possible for us to publish a little book in Spanish, last year, that gives brief information about the theory and practice of our active school. It is of especial help to parents in understanding this unaccustomed method, and being able to explain it to their sceptical acquaintances.

The parents urgently desire an active secondary school. This requires considerable investment, not only in buildings and materials. This next step depends upon whether we can acquire a suitable piece of land, as to add yet another building upon our leased grounds seems too risky for the continuance of our work and for the one hundred and seventy children who are with us at present.

Besides the ever-intensifying and expanding training and advisory service for Indian teachers, we are currently engaged in projects in the poorest parts of Quito, where parents and teachers have decided to change over to active education as soon as possible. Even the few suggestions which they have followed to date have resulted in important alterations in their work, and these have spurred them on to further changes. Now they are asking whether they can strengthen their work by coming under the legal umbrella of the Pestalozzi Foundation.

19: Postscript

It is now May 1989, almost three years since this book first came out, and it is nothing short of a miracle that the 'Pesta', as it is called here, affectionately or other wise, is still in existence.

In the twelve years since we first began, we have survived many storms, met with some predictable and some totally unpredictable experiences, acquired some new insights and several grey hairs! Outer developments have run parallel with inner ones, and the original idea of an alternative school has deepened and grown into a wider understanding of the processes of human development.

Our sons have grown up. Leonardo, whose dubious experiences of conventional education gave us the impetus and the courage to start our new kind of primary school, will soon be twenty three. When he was twelve, and we allowed him to leave school, he spent over a year at home, and it became clear to all of us that during this time he was re-establishing contact with himself. After a couple of months 'doing nothing' he baked bread to earn the money for a new bicycle, upon which he explored the area around 'Ilalo', the extinct volcano near the Pestalozzi school. Then he began to read avidly. At fourteen he had another day at secondary school, but his greatly increased ability to study on his own made conventional schooling seem excruciatingly boring. In his free time - often deep into the night - he began to write stories, and would keep writing until his hands were a mass of blisters. At sixteen he left school for good, and worked to earn the money to travel to Europe where he spent a year, doing various jobs, going on courses, travelling. A year later he re-appeared in Ecuador with the manuscripts of two new books! While he was trying to decide whether to study for the school-leaving certificate, an unexpected opportunity came his way - the chance to be a crew member on a sailing boat in the South Pacific; and after six adventurous months he returned home full of enthusiasm for study. In four months he was ready for the American school-leaving certificate, so he registered for it in Washington D.C., and was able to start a course of study there six weeks after arriving in the States. In the next two years he earned his living there, and also completed so many courses that he finished the foundation degree with twice the necessary amount of credits. During this

period he had time only for short stories and poems, some of which were published. Unable to decide upon a specialist subject, he decided first to write his next book, so came home and spent the next year writing, helping with our new building, joining a geological expedition to the Amazon region, and helping compile a history of the Saraguro Indians. Just as he was beginning to think about study again, his old friend sent him a ticket to Australia with the option of helping crew the boat through the South Sea Islands, round Cape Horn, and back again to Ecuador. As I write this he is somewhere in the South Pacific - he writes that his hands are blistered again both from working on the boat and from starting on his new book. His 'leisure time' is spent in learning the skills of deep sea diving and operating a ship's radio, and learning French.

I have told this 'tale of a drop-out' for all those parents who worry that the only apparent alternatives for their children are either to spend many years in formal education and training or to end up as useless 'bums'. I should also mention that we love and respect Leonardo, sad he us, and that a problem between the generations has simply been bypassed because we have allowed him to take his own decisions.

Our second son Rafael, the original two-year-old 'founder of the Pestalozzi school' is now fourteen. He has left the primary school and joined our 'experiment', the new type of secondary school which will be described more fully later in the chapter. For us, Rafael is the living proof that our 'educational method based upon the spontaneous activity of the child' can create a new kind of adolescent. In the previous version of this chapter, seven years ago, I quoted what Rafael said when he learned to read:- 'Up till now I saw the letters with my eyes and wrote them with my hand, but now I have learnt to make them sound in my heart!'

After this it was three or four years until Rafael found longer books sufficiently interesting to supplant his other, more important, activities; but he always loved long bedtime stories, which turned into whole books during the holidays, as on the long moonlit evenings on the boat which took us slowly and comfortably along the Ecuadorean coast to Guayaquil. When, at twelve, he really started reading with enthusiasm, it was as a reward after a busy day, and he would start after supper and read late into the night, often a whole book at a time. As well as school work, his days are full of practical activities, which he organizes himself, and many a Sunday will see him experiment for hours on techniques of fishing, or on building a go-cart. He is

at once both totally child, and the possessor of an amazing ability to get the measure of very complex situations. This is in general one of the characteristics of 'active children' - they are completely dignified as children, and do not consider childhood some embarrassing sickness to be 'got-over' as quickly as possible. Up to the age of puberty they are still play-acting, often with younger children, and still enjoy physical games without any element of competitiveness. Above all, they always find something interesting to do, enjoy practical work, and make friends easily, both with other children and with adults.

If we compare children who have grown up in the 'active system' with others who have spent most of the time sitting at a desk, we notice that the 'active children' move with more confidence, and that, without any outside pressure, they help keep communal spaces tidy. They can usually resolve arguments in ways that would never occur to an adult, and often cope better with stress situations than we do.

This story comes from the parents of Christian, one of our 'impossible' who spent almost all the mornings in physical activity, and perhaps half an hour a day with structured 'learning materials' although he showed excellent organizational ability in this half-hour. His family were involved in a car accident. Their injuries were not very bad, in fact Christian, with a head wound, was the worst hurt. But the parents went into shock and were totally unable to cope with the wrecked car and the aggressive driver of the other vehicle. It was their son, their 'no-goodnik', who told them, step by step what to do. Since then Christian has managed, year after year, to keep postponing the time when his parents 'would send him to a proper school'. He has been with us for seven years. At a recent parents' evening the father suddenly realized what our school was all about, and stated 'At last you have explained everything in a way that I can understand.'

In the summer holiday of 1987 I took the time to write an additional book, which I have called - 'Living to Educate'. It describes the processes which bring children, and adults too, to full human maturity, and tells of our experiences in tackling the many and varied problems which can arise between children and adults, whether in an 'active school' or at home. I am still revising the manuscript but it should be ready before too long, so I shall not spend time here on those processes which we have observed during our twelve years in the 'active system' but rather report on the general development of our work in recent years

Relationship with the Ministry of Education

Although the Kindergarten was recommended early on as a model by the Ministry of Culture, and this brought us visits from teachers from all over the country, the primary school ran initially for three years without official recognition. When the longstanding military junta in Ecuador was replaced by a democratically elected government, there was a change in the previously inflexible law governing education. Parents were officially allowed the right to choose the type of schooling for their children, and this opened a door for alternative education. The Pestalozzi school was given permission to function with our 'method of education based on the spontaneous activity of the child', but there was no recognized school-leaving certificate for this form of primary education, and children who went on to the traditional secondary schools had to sit a Ministry exam before they could be 'placed' in the secondary system. Recently, this has changed. The present administration sees the function of alternative schooling as 'to break through the confines of the law as it stands and to bring totally new experience into the practice of education'. There was a series of seminars, in which the authorities and the heads of all the alternative schools in Ecuador came together to work out rulings and guidelines for alternative education - and it transpired that up till then only the Pestalozzi school had been fulfilling these conditions. In July 1989 the 'Pesta' and the Ministry of Education organized a week-long seminar in which the theory and practice of the 'educational methods based on the spontaneous activity of the child' were introduced and brought forward for discussion. Delegations of Saraguro Indians, and a representative from the 'Active School' in one of the poorest quarters of Quito took part, and made it clear that alternative schooling is not a privileged elite education for the intellectual or the wealthy, but on the contrary offers precisely the 'under-developed' peoples a real chance to find solutions for many seemingly insoluble problems. Since August 1989 the Ecuadorean Ministry of Education offers children who have been in the 'active system' until the age of fifteen or sixteen (the equivalent of the final year in a traditional school) an official school leaving certificate which, instead of certifying academic training, attests to their 'social, intellectual and emotional maturity'

Organization

Soon after we received official recognition in 1983, we acted on an imitative of the school parents, and gave the school, up till then our own private enterprise, the status of a Foundation - Fundacion Educativa Pestalozzi. The general meeting of its members elects representatives for an Advisory Board, which is responsible for all the administration. The aim of the Foundation is to maintain the two kindergartens, Pestalozzi I & II, and, on demand, to support the further dissemination of the methods.

Although until recently the primary school had no official school-leaving certificate, in the last few years an increasing number of parents have decided not to send their children to a traditional secondary school but to leave them with us. Primary school parents have had to sign a contract each year, confirming their agreement with the 'free methods' and committing themselves to attending a lecture for parents once a month. As in the kindergartens, so in the primary school a small percentage of severely handicapped children is integrated into the school each year, on condition that no child should undergo any special therapies outside school except with the agreement of our staff. Over the years it has become increasingly clear that children whose handicaps are 'treated' with therapeutic techniques are unable to make positive use of the possibilities offered by a non-directive, relaxed environment, but rather use it to work off the tensions generated by constant directive treatment.

Conversely, children who can open themselves to the surroundings in their own way can be seen to make surprising advances through the healing powers of nature, in ways that even the specialists cannot understand.

The need increased for integration of different social classes within Pestalozzi I, and we continued to maintain the free kindergarten, Pestalozzi II, in the country the other side of Tumbaco with about thirty children and two teachers. Indian families from various provinces and 'nationalities', as they are called here, came to work in Quito and found that in the official schools the children had to wear uniform instead of national dress, and the boys had to cut their long plait off, so they looked to Pestalozzi for respect for their individuality and cultural characteristics. Children from the poorest quarters of Quito and Tumbaco, Indians, and children from the middle and upper classes mixed together more and more, and furnished the proof that our respect for the 'genetically determined programme of children's development', and our attempt to put it into practice, was helping

the children to develop an astonishing ability to value each other in all their individual, social and cultural characteristics.

One problem that resulted from this practice has been the financing of the scholarships which today make up about 40% of our out-goings - we have no government help. We have tried to make up the unavoidable yearly deficit with private support from abroad, and the Pestalozzi Support Group, (now known as 'grow with the children' has given much help over many years. An export business with ethnic crafts, and a weaving enterprise got off to promising starts but has had to be put aside, at least temporarily, for lack of reliable people to work in them. Voluntary helpers have in general been impermanent, and the lion's share of the work has kept coming back to us personally - but we have been stretched to capacity with the various new developments, and simply cannot give the time.

Work with Adults

Work with teachers and parents has become more and more important to us, as we have understood that it is we ourselves, the adults who comprise the greatest obstacles in the 'relaxed and enriched surroundings' that we are attempting to provide. Two afternoons a week have been allocated to working with teachers, and three kept free for private conversations with parents. Two evenings are given to 'group-work with the parents of children in the different age-groups or board meetings for solving practical problems. On Saturdays we give introductory lectures upon educational problems in society to interested teachers from other schools, representatives from projects which are beginning to work with alternative methods; and parents who are particularly involved or interested. The Advisory Board members are chosen from people who have attended these lectures, and many educationalists and teachers who have attended have later come to work with us.

The model of a 'totally different' school, in which people of differing social classes and nationalities are treated with equal respect has repeatedly attracted the attention of groups of people who are looking for new ways of working. Many have come to visit, to look for ideas and share experiences, and from these visits have grown initiatives such as the day nurseries, supported by Terre des Hommes in Switzerland, which have been working for over seven years with methods that respect the child's own initiative. From our work with the Saraguro Indians developed their 'active schools'

within the state system, which have been supported for many years by the Third World group of the Catholic church in Brugg in Switzerland. There are also an 'active' kindergarten and a school in the federation of Barrios (the poor districts) in the North West of Quito.

These developments have led to conflict with those Pestalozzi parents who, consciously or unconsciously, had hoped that the 'Pesta' would become an 'alternative' elite school, which would guarantee their children a high intellectual and social standing. When the first five Indio teachers started work, and children with plait and poncho had the same rights as those with fair curly hair, the 'better' families left us in droves. It was rare for anyone to state the reason openly - most of those who fled to the security of recognized and socially accepted schools did so as furtively as possible.

There was even a new crop of 'active schools' which promised the parents to conform with all ministerial decrees, to keep to the current curriculum, and to have regular school-leaving certificates - and 'active methods' too! In one year we lost 30% of our paying pupils. But the 'Pesta' survived these storms too, and new parents came whose search for an alternative was part of a total concern to find a new direction in their lives.

Project Secondary Stage

In time we were confronted with the problem that our 'alternative' was supposed to come to an end when the children, at the age of thirteen, left primary school.

We had found repeatedly that children who had spent some years in the 'free system' had no difficulty in adapting to 'normal' schooling, and in most cases were among the best pupils in their class, or were allowed to skip a year. We built on the fact that the 'operational' phase between the ages of seven and twelve requires a prepared environment, in which children solved problems in a concrete situation, and thereby form the structures of understanding which enable them to cope with the laws and relationships of the physical world; and that this phase coincides with the end of primary schooling in this country.

Since its inception, the Pestalozzi school had rented a piece of land. The owner lived in America, and we were subject at any time to a year's notice. Land prices kept rising, and our currency was hit by inflation, so that despite

raising the rent, the owner was receiving progressively less dollars for our sucres, and it was obvious that the logical course was going to be to sell. Our Advisory Board had turned down the project for a secondary school in the 'Pestalozzi Spirit' until such time as we should have our own building on our own land; but our finances were such that we could not possibly think about acquiring either.

Then an Indio girl, who had previously been very unhappy in an ordinary school, flatly refused to leave Pestalozzi when she reached the age of thirteen. Her father wrote a fiery letter to the Advisory Board saying that he officially entrusted the next stage of his daughter's education to us, because he had so far been completely satisfied. He appealed to our humanity not to inflict a traditional secondary school upon his daughter, and his letter ended with the challenge; 'Only the most honourable can dare to act outside the law'.

A member of the board offered to act as tutor for the child, and Maria Belen remained at the school. In the middle of the tumult of a hundred primary children, she and her tutor managed to work out their own space. When two other girls who had gone to secondary school heard about this they came back; and the Pestalozzi school acquired an illegal secondary stage.

Our earlier rather vague concept of an alternative secondary school was gradually developed, and at the time of writing it is being put into practice with fourteen young people between the ages of thirteen and sixteen. Following on our experience of 'sampler apprenticeships' for the older primary children, consisting of three days each month in different work-places in the adult world, this was a natural development for the older children. The basic idea is that at this age young people are making the transition from the operational stage - often especially strong in boys at this time - to that of abstract thinking. Our attempts to find the needs of this interim phase brought us to the conclusion that they can be satisfied by contact with many new worlds of open social experience, but in no way by isolation in academic schooling or specialization for pre-determined careers. These conclusions have led us to a secondary school model in which the young people spend about a month each term either in work-experience or in encountering another culture, and the rest of the time in a prepared environment suited to -their intellectual and social needs and to their need to play. Their spontaneous interest and liveliness within this kaleidoscope of experiences shows clearly that this new way of doing things satisfies the

genuine needs of young people far more than a programme of academic study entailing many hours at a desk. We see clearly that, in the course of interaction between a growing organism and an increasingly complex environment, new structures of understanding are formed, corresponding to the inbuilt development plan for this age-group. Our 'mini secondary school' has temporarily moved into a little guest house, and patiently awaits a better home.

During our latest summer course in Saraguro we were invited to a general assembly of the 'Comunidad Namarin' to speak about our support for an 'active' secondary school programme for the Saraguro children. Although many of our listeners were simple farmers living in illiterate cultures, and communicating in Spanish, not through the exchange of ideas, but through vivid pictorial description, we reached agreement about working together to make possible a secondary education based on reality for their children. Up to now there have been only two possibilities for them - either no secondary education at all, or the Procrustes-bed of a system that cuts them off from their own culture and 'explains concepts by more concepts', see Federic Vester's 'Leitmotiv vernetzes Denken', (Guidelines of Connective Thinking), so more and more Indio parents are urgently looking for something new.

In the Saraguro project, children who have already learnt to work independently in the 'active' primary school continue along two routes. On the one hand they integrate with the practical work of their family and tribe - farming, cattle rearing, spinning, weaving, joining in the communal building of houses and roads; on the other they spend hours, or days, or weeks, with our teachers, working with more complex educational materials, and also, with their help, and the co-operation of their own community, learning about the customs, legends, traditional medicines and important survival techniques of their own tribes and beginning systematically to make a permanent record of them.

For two months each year, at a time that their tribe can spare them, they come and live with our urban children at the Pestalozzi school in Tumbaco. There, in our growing secondary stage, they discover new ways of learning and gain work experience which can be useful to them at home, and also give them some insight into the ways of working and some of the problems: of our Western-type civilisation. We think that young people who have had these varied experiences will be less tempted to run to the cities in search of a better life, unable usefully to apply what they have learnt at school to the

surroundings of home. And we can confirm that the Saraguro children who come to Tumbaco for a week after finishing primary school have become more sure of themselves, more enterprising, happier - and considerably more critical.

Financial Organization

As I have said, finance for our projects has always been a worry. We have continually needed more materials and equipment, our basic principle of social integration by means of scholarships has consumed 40% of our budget, we have no government support, and we share the economic insecurity typical of Third World countries - inflation in Ecuador rose this year to 80%. In the summer holidays, when no fees were coming in, we were often unable to pay out more than a small proportion of the coming month's salary to our teachers and employees. Salaries are still at a minimum level, but thanks to gifts from abroad which help finance Pestalozzi II (the free kindergarten) and scholarships to Pestalozzi I, and to summer lectures, which are sometimes financed by charitable organizations and which take care of the summer salaries of the teachers who give them, it has been possible latterly to catch up on each year's deficit and to carry on to the next.

Unforeseen developments put a new complexion upon our old dilemma, our being unable to press forward with the secondary stage until we had land of our own. An Advisory Board member extracted a promise from the previous government that Pestalozzi would be given new buildings, as long as - and here was the snag - we could produce our own land, or at least a signed contract for its purchase - or if we could show suitable architect's plans we could build the classrooms ourselves and they would finance us. The general meeting of the Foundation decided to take the chance and buy land - but when we had just signed the contract we were told that the government's '100 % firm' offer was off - all their money would be needed for the forthcoming election campaign! We appealed to all our 'friend and sympathetic organizations in Europe to help us out of the difficulty - and a wonderful response brought in so much money that we were able not only to buy the land but also to start the first phase of the building!

We have had to overcome many obstacles, and there are still many more before the building project can reach its successful completion. The most positive development in this long story (which I have here only sketched) was the overwhelming offer, from twenty fathers of pupils in the school we

support in the Comunidad Namarin of the Saraguro Indios, to build our new primary school for us. In two months a new building arose like a miracle, a true example of ecological building practice, and of the possibility of friendly co-operation between white and Indio.

How is it possible to carry on despite the difficulties?

This report has told our story; of working with commitment and drive on an alternative course, to create a different kind of educational experience, for our own son, and later for many other children. After twelve years, we have realized that, in addition to the external difficulties, one of the greatest problems is that initial enthusiasm can get swamped by routine, with the original motivation receiving no fresh nourishment. For this reason we have always been aware of a need to strive towards a deeper and more many-sided understanding of our work, and to share this with others. This attitude has in turn meant that working with the children has offered a natural opportunity to extend our own growth; and we have entered upon this process in full awareness, as I have attempted to describe in 'Living to Educate'. This renewed vision of our work and ourselves has deepened and strengthened our motivation for continuing in a task in which perceptible results are only unexpected gifts, few and far between.

Upon coming into contact with our work for the first time, people always ask the same questions:

'Don't you think that children who have grown-up in this method will have difficulty in adjusting to normal life? How can they learn all that they are going to need if they do not have to buckle down early and work at subjects which they do not like? Can they really be learning if they follow up only what interests them, and even spend a large part of the day just playing? Is it not our duty to push them on to abstract thought as early as possible, with an eye to success in later life?'

Recently a mother who had finally decided to withdraw her children from the 'Pesta' told me how happy she was that her children were now learning discipline 'and practising march music together on three different wind instruments.' We cannot know where this sort of 'discipline' may lead. The oldest girl had always found it particularly difficult to work on her own without the usual external directives, to solve concrete problems, and to concentrate. The boy was always, fighting with the other children, and

would seek adult help several times a day for problems he was unable to solve, and the little sister had been longing to go to a traditional school 'because you can sleep so well in their lessons!' Obviously such symptoms are closely connected with the parents lack of understanding, and it is precisely this type of parent who finds it particularly hard to persevere in an alternative which ultimately forces them to re-examine their own attitudes and risk the challenge of change.

Still however much goes wrong it is certainly worth 'hanging on in there'.

The appendix of Herbert Kohl's book 'On Teaching' gives a large amount of research findings about the subsequent careers of pupils from 'alternative schools'. The data confirm not only that as adults 'alternative pupils' reach a reasonable professional level, but also that on average their personal and family lives are happier than those of comparable groups. They are also noticeably more interested in new ideas and areas of study, and show a greater awareness of social responsibility.

We also hear that, after a short transitional period, the Pestalozzi pupils who have joined the traditional secondary system are almost always among the best pupils in their class. In fact many people who hope to see children of this age being all-round revolutionaries interpret this fact negatively. Our experience is that in children of this age the need to live harmoniously and satisfy emotional needs is very strong, and will make them fit in even to unsuitable surroundings so as not to forfeit love or affection.

With the older children, in some cases already adolescents, who have stayed with us regardless of the 'illegality' of the secondary stage, we notice an increasing ability to look critically at the world. Our primary children, who from ten onwards spend three days each month in very varied work experience placements, in the city and on the land, are mostly delighted with their opportunity of getting to know the world, and are easily won over by their employer's approval, or by an especially good pizza.

Our secondary pupils, on the other hand, turn a very critical gaze upon the adult world, and are quick to notice if someone is laying claim to more skill or knowledge than he in fact has, or if someone is influenced by class differences in his dealing with colleagues or customers. These children are already asking the fundamental question - whether it is worth 'going along' with many of the values which most adults seem to take for granted. And

they are critical not only of obvious. insults to human dignity, such as they might see in a luxury hotel, for instance, but also of the subtle arrogance and scorn for other people of the scientists in a world famous research station.

Their parents, too, can expect an equally critical attitude. Older children are allowed, if they wish, to attend the parent-teacher discussions. In one of these Tania's mother was complaining about her daughter's untidiness - 'Why do you have to leave your dirty socks all over the place instead of putting them in the laundry basket?' Tania shot back, I think your endless quarrels with Daddy pollute the house a lot more than my socks!'

‘As we swim against the tide, trying in the face of all obstacles to create an environment that makes a new education possible, it becomes ever less important to us to 'adapt' our children in new and better ways to the world as it is. The longer we devote ourselves to our task, the clearer it becomes that here is a question of life and thought in a new mode altogether, as suggested by V. Kuhn in 'The Structure of Scientific Revolutions' or a new 'morphogenetic field' as in Sheldrake's 'A New Science of Life'.

In his introduction to the July 1989 seminar for experimental schools in Ecuador, Mauricio pulled the carpet from under his listeners' feet, saying:-

'All of us sitting here are suffering from an illness that is more dangerous than SIDA (Sindrome de Inmunidad Deficiente Adquirida, Spanish for AIDS). We have an illness which is beginning to threaten our whole civilization and it is called SEDA, Sindrome de Educacion Deficiente Adquirida, Acquired Educational Deficiency Syndrome. The worst thing about this illness is that we have not yet realized that we have it, in fact we are even proud of the' symptoms.

The dangerous thing about the way people have been educated up to now is its biological falsity which runs counter to the most important principles of development and effectively paralyses them. Houmar von Dittfurth's book 'Der Geist fiel nicht vom Himmel', (The Spirit did not fall from Heaven), tells that the human egg cell already possesses the three most important characteristics of intelligent, that is to say viable, life:- differentiation, evaluation, and choice. To prevent its inner structure being destroyed by the general chaos in the world outside, the egg admits only what is necessary for its own survival; and to this end it has a semi-permeable covering

membrane which allows both protection and adequate interaction with the outside world.

Unless we human beings wish to set our own integrity at risk we must interact with the world in the same way. Our inner structure is infinitely richer than that of a primitive cell, and our progressive development follows a wonderful, and strictly determined genetic plan. Our 'skin our semi-permeable membrane, has devolved into our five senses, but the basic principle of all organic life remains constant - direct interaction with the world in an intelligent way - and this is the only way in which our genetic maturation plan can come to fruition. In my book 'Living to Educate' I have tried to describe this plan of inner structuring as simply as possible, and especially to depict the role of the adult in the process.

Especially in the second chapter of his book 'Leitmotiv vernetztes Denken', (Guidelines of Connective Thinking), Federic Vester explains the devastating connection between so-called 'normal educational practice' with its push towards premature abstraction, and the increasingly dangerous unsolved problems of our civilization. He warns emphatically that teaching methods which do not seriously take into account the process of biological development and the reality of the whole person, that is to say which run counter to human ecology, lie at the root of our failure to recognize the inter-connectedness of living things, and thence our inability to live in harmony with ourselves and our world. In his books 'The Hurried Child' and 'All Grown Up and No Place to Go', David Elkind cites many examples of the destructive effects of ways of life which do not respect our true human needs. Not only the 'developed' but increasingly now the 'developing' countries can add all too many new examples to his statistics.

Rather than adjusting to the 'normality' of our endangered world, with its extravagant efforts to find ever new ways of arriving at the same place, an 'education for being' tries consciously to align itself with Life. To work with Life, to learn to know and honour its underlying principles, is our alternative to the 'Unlife' which threatens our world when we ignore and abuse the realities of its life and our own.

Life is one; and every effort to bring human beings to 'respect nature', even to the extent of making ecological studies compulsory in the junior school, is useless and senseless unless we bring our children into direct contact with the world, instead of shutting them away behind schoolroom walls, and

subjecting them to instruction from adults who purvey knowledge that they themselves: have garnered from books or from people who 'ought to know'. Even now, when a teacher shams something of his own experiences, hopes, mistakes or problems, we see a dramatic rise in attention - how much more so when it is the pupil's own initiative that leads to direct experience in actual situations!

Certainly the condition of the world which we will pass on to our children is very much our responsibility and demands our full attention. But this is not enough unless we also alter the quality of our relationships. We take the first step when instead of endlessly interposing ourselves with our instruction, manipulation, interpretation, between young people and the living world, we are willing simply to be with them and support them in their natural activities and the growth that arises from them. This attitude frees all of us for more respectful and loving relationships.

As Vester continually points out, 'connective thinking' as a way to solving our problems cannot be taught. It happens spontaneously when all our inner structures, from intuition to formal thinking, have come to life and are inwardly connected with a constantly flowing contact. This becomes possible only through concrete and direct interaction with an environment which not only acknowledges the need for autonomy and spontaneous action but also actively reinforces the opportunities for them.

Why are the numerous research studies, which increasingly clearly demonstrate the inter-connectedness of body and mind, adopted into general education practice only when it is a question of bringing 'abnormal' individuals into line with the current 'norms' and exercising tighter control over the adaptation of each individual to the accepted system of values? Who is stopping us making decisive changes in our educational system? Who is afraid of whom? Teachers of 'the authorities'? Parents of 'the teachers'? Teachers of 'the parents'? Or is each one of us afraid of himself, of embarking upon something new, for which he has no previous formal training, and which questions the validity of his own education?

The Ecuadorean government allots the final decision as to the preferred type of children's education to their parents. Clearly other, in other ways democratically governed, countries do not allow parents this right; but I am still convinced that if enough parents were to become conscious of the inner and outer connections as they affect educational practice, they could so

influence public opinion that new explorations need no longer be confined to individual 'subversive teachers' or single initiatives. Even in countries where there is mom freedom of choice in education there is a lack of people who are able to begin something concrete, and to pass on their experience to others.

Among the higher animals it is normal that the mothers furiously defend their young from danger, and a hen will even attack a serpent in defence of her chicks.

It is only we, human beings, who thoughtlessly subject our children, year after year, to an environment in which the basic principle of living interaction with the world, and consequently all intellectual and emotional security, is systematically undermined!

Our task is not an easy one; but the important question is not 'How difficult is it...?' but 'How necessary is it?' We think that the need is equally great everywhere, in developed or underdeveloped countries. Despite our other differences, in human terms we are all in the same boat. We all need to try and save our sick world and the quality of our human existence. Thus this account of the experiences of an active school in Ecuador ends with the final words of Schumacher's 'Guide for the Perplexed':-

The art of living is always to make a good thing out of a bad thing. Only if we know that we have actually descended into infernal regions where nothing awaits us but 'the cold death of society, and the extinguishing of all civilized relations' can we summon the courage and imagination needed for a 'turning around....

This then leads to seeing the world in a new light, namely as a place where the things modern man continuously talks about and always fails to accomplish can actually be done....

Can we rely on it that a 'turning around will be accomplished by enough people quickly enough to save the modern world? This question is often asked, but whatever answer is given to it will mislead. The answer 'Yes' would lead to complacency; the answer 'No' to despair. It is desirable to leave these perplexities behind us and get down to work.'

APPENDIX

The Pestalozzi Schools Support Group

Because the Pestalozzi schools are a social project but have to depend upon fees for their survival, there is always a danger that those who most need its services will be unable to obtain them. Consequently, the project always suffers from lack of finances, and, particularly, from the fact that many necessary or meaningful further developments have to be postponed. It has often only been made possible to maintain the social-service aspect of the school by donations; and the founders, at great personal sacrifice, have always withstood the pressure from wealthy parents to allow the school to become an elite private school although this would at a stroke have removed all financial worries.

In the German-speaking countries, in co-operation with international organizations, we have set up a support group for the Fundación Educativa Pestalozzi. Repeated visits to Ecuador have convinced us of the remarkable results of its work, and we believe that the ideas, and the people behind it offer the best foundation for far reaching and positive changes which already extend far beyond

The support group is a voluntary body of all those interested in one or more of the following objectives:

1. Financial support for the Pestalozzi schools. All donations are passed on directly without any administrative costs.
2. Making known the special experience of this type of school and encouraging the foundation of similar schools in Germany.
3. Supporting the establishment and extension of schools in Ecuador which will offer a truly appropriate education to Indian children.
4. Support and encouragement for the continuance of Indian art in Ecuador. The Pestalozzi schools attempt to achieve a certain degree of independence from donations by the export of Indian craft articles.

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